DOCUMENT RESUME

ED 193 621 CS 005 701

TITLE The Evaluation of Reading Materials Used for Instruction in Grades One-Six (1978-79). An Evaluation System Report.

INSTITUTION District of Columbia Public Schools, Washington, D.C. Div. of Research, Planning and Evaluation.

PUB DATE Sep 80
NOTE 94p.

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Educational Assessment; Elementary Education; Formative Evaluation; Reading Achievement; Reading Instruction; *Reading Materials; *Reading Research; *Use Studies

ABSTRACT

This report provides an analysis of data from the 1978-79 school year that was collected in an evaluation of reading materials used for instructional purposes in grades one through six of the District of Columbia public schools. Following a discussion of the scope and purpose of the evaluation project, the report provides findings that address the following questions: (1) What are the most frequently used reading materials in grades one through six? (2) What reading score gains are associated with what reading materials? (3) Do some reading materials appear to be more effective than others? and (4) Is there a benefit to students if the same reading material series are used at each successive grade level within a school? Appendixes contain a list of the schools participating in the evaluation and replicas of the classroom/student background form and the reading program form used in the evaluation. (FL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED193621

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

District of Columbia Public Schools

THE EVALUATION OF READING MATERIALS USED FOR INSTRUCTION IN GRADES ONE-SIX (1978-79)

AN EVALUATION SYSTEM REPORT

Division of Research, Planning and Evaluation
September 1980

CS005701

NOV 17 1980

DISTRICT OF COLUMBIA PUBLIC SCHOOLS

OFFICE OF THE SUPERINTENDENT

Superintendent of Schools	Vincent E. Reed
Vice Superintendent of Schools	Elizabeth C. Yancey

DIVISION OF RESEARCH, PLANNING AND EVALUATION

Assistant Superintendent	Mildred P. Cooper
Director, Evaluation System	Herman Cobb, Jr.
Assistant Director	Beulah G. Glenn

. . . . . .

Consultant	H. Russell Cort, Jr.

ACKNOWLEDGMENTS

The Division of Research, Planning and Evaluation extends appreciation to the many individuals who have contributed both in general and in terms of this report to the Evaluation System of the District of Columbia Public Schools. Deep gratitude is expressed to the teachers, reading specialists, students, administrators, and others in the Evaluation System schools for their continuing cooperation and interest. We also thank the Division of Automated Information Systems (DAIS) which has handled the preparation and merging of computer tapes and consultant, Dr. H. Russell Cort, Jr., who provided major assistance in the preparation of this report.

PREFACE

This is a special report provided in addition to the regular series of Evaluation System Reports issued by the Division of Research, Planning and Evaluation.

This report provides an analysis of data from school year 1978-79 pertaining to reading materials used for instructional purposes in grades one through six. It attempts to address the question of which reading material(s) tend to have the greatest impact on reading achievement.

This report is an expansion of regularly issued Evaluation System reports on reading programs and reading achievement in the District of Columbia Public Schools.

TABLE OF CONTENTS

	Page
LIST OF TABLES	vii
LIST OF FIGURES	viii
CHAPTER	
I. INTRODUCTION	1
II. PURPOSE AND SCOPE	2
Objectives	2
Data Collection	2
III. MOST FREQUENTLY USED MATERIALS	5
Introduction	5
Method	5
Results	5
Discussion	9
IV. READING MATERIALS AND ACHIEVEMENT GAINS	10
Introduction	10
Method	10
Results	11
Discussion	11
Conclusions	19
V. COMPARISONS OF MAJOR READING MATERIALS	20
Introduction	20
Method	20
Results	23
Discussion	41
Conclusions	45
VI. SAME SERIES OF READING MATERIALS USED ACROSS GRADE LEVELS	48
Introduction	48
Method	48
Results	50
Discussion	50
Conclusions	53

TABLE OF CONTENTS (Continued)

APPENDICES — Page

A. EVALUATION SYSTEM SCHOOLS..... 55

B. REPLICA OF THE CLASSROOM/STUDENT BACKGROUND FORM..... 57

C. REPLICA OF THE READING PROGRAM FORM..... 60

LIST OF TABLES

Table		Page
I.	PREVALENCE OF MOST FREQUENTLY USED READING MATERIALS BY GRADE (ONE-SIX)	6
--	COMPARISON OF READING PRETEST SCORES AND PRE-POST GAINS OF STUDENTS USING VARIOUS MATERIALS BY READING LEVEL FOR:	
II.	GRADE ONE	12
III.	GRADE TWO	13
IV.	GRADE THREE	14
V.	GRADE FOUR	15
VI.	GRADE FIVE	16
VII.	GRADE SIX	17
VIII.	SAMPLE SIZES FOR THE MATERIALS COMPARED, BY GRADE LEVEL	22
IX.	STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 1	24
X.	STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 2	28
XI.	STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 3	31
XII.	STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 4	33
XIII.	STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 5	36
XIV.	STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 6	40
XV.	A GENERAL MERIT RATING OF THE NINE MOST PREDOMINANTLY USED READING MATERIALS BY GRADE LEVEL	46
XVI.	SUMMARY STATISTICS FOR COMPARISON GROUPS BY GRADE	51

LIST OF FIGURES

Figure		Page
1.	REGIONS OF SIGNIFICANT DIFFERENCE BETWEEN PROGRAM SAMPLES, GRADE 1	25
2.	REGIONS OF SIGNIFICANT DIFFERENCE BETWEEN PROGRAM SAMPLES, GRADE 2	30
3.	REGIONS OF SIGNIFICANT DIFFERENCE BETWEEN PROGRAM SAMPLES, GRADE 4	34
4.	REGIONS OF SIGNIFICANT DIFFERENCE BETWEEN PROGRAM SAMPLES, GRADE 5	38

I. INTRODUCTION

The Evaluation System of the District of Columbia Public Schools has several purposes. At the most general level it is designed to enable the school system to evaluate the effectiveness of programs and to identify characteristics of programs that seem to increase effectiveness. Also, it is designed to enable the D.C. Public Schools to follow particular students over a period of years, to examine long-term effects of different programs, and to measure changes in program characteristics from year to year. The design of the Evaluation System is such that analyses or evaluations can be done at a number of levels: the individual student, the classroom, the school building, the grade level, the program, the region, and the overall school system.

An essential feature of the Evaluation System is its ability to correlate data. Thus, the System is designed to combine test data with program data, and to combine both of these with a variety of other data or measures such as: student absence, sex, age, size of class, student turnover rate for classes, type of class, involvement of aides, and many other such measures.

The Evaluation System is designed to support the investigation of an almost limitless number of questions. One such question being addressed in this report is which reading material(s) tend to have the greatest impact on reading achievement in the D.C. Public Schools.

II. PURPOSE AND SCOPE

A. Objectives

This special report on reading materials addresses the following questions:

1) What are the most frequently used reading materials in the District of Columbia Public Schools, grades one through six?
2) What reading score gains are associated with what reading materials?
3) Do some reading materials appear to be more effective than others?
4) Is there a benefit to students if the same reading material series are used at each successive grade level within a school?

Data for a city-wide sample of students in grades one through six are included in this report.

B. Data Collection

1) Collection Procedures

The data in this report was collected using three basic instruments.

a. The Classroom/Student Background Form (SBF) is a two-part machine-readable form designed especially for the Evaluation System by the Division of Research, Planning and Evaluation (RPE). One part of the form is for the collection of background data on the classroom and the other part is for the collection of background data on the students in the class.

This form is completed by staff from RPE in the fall and spring of the school year.

b. The Prescriptive Reading Test (PRT), the school system's own criterion-referenced reading test, has been administered in the fall and spring of each year. The test is constructed by levels ranging from A through F which cover the reading grade level objectives for grades one through six. Students are administered test levels according to their instructional level. Fall and spring test results were matched for each student.

c. The Reading Program Form (RP) is a two-part machine-readable form designed by RPE and completed by teachers during the month of May of each year. One part of the form is for the collection of classroom reading data and the other part is for the collection of individual student reading program data.

Data were collected from the 34 elementary schools participating in the Evaluation System. The official October 1978 total membership in these schools for grades one through six was 13,674 students.

2) Test Data

The test data were percentages of reading objectives mastered in the fall of 1978 (pretest) and in the spring of 1979 (posttest) on the Prescriptive Reading Test (PRT), Levels A through F. Only the scores for students who had both pre- and post scores for the same level of test were used. Since many teachers administered different levels of the PRT to different students in their classes (as they should have),

test raw scores were converted to percentages in order to arrive at a class average, or in order to make the range and units of test scores reasonably comparable for different students in the same reading program. The "raw score" for a test was the number of objectives mastered according to PRT criteria. The percentage computed was the number of objectives mastered divided by the total number of objectives in the test for the level administered.

3) Reading Materials

A description of each student's reading program in terms of reading materials, grade levels of materials, and relative emphasis given to each material used was obtained from the reading form described in 1) c.

III. MOST FREQUENTLY USED READING MATERIALS

A. Introduction

What are the most frequently used materials with students in grades one through six? Data on 9,174 students for whom valid first reading materials were recorded are included in this chapter. Those data were collected on the reading program form for school year 1978-79.

B. Method

All students using a particular reading material were tallied together by grade level and combined for all grades. Percentages were computed for students using the materials at each grade level. Materials were listed in order of frequency of usage across all six grades and identified as to the reading program category. Each material listed on the Reading Program Form was placed into one of seven main categories:

- Basal Series
- Linguistic/Phonics Materials
- Programmed/Structured Materials
- Language Experience Materials
- Individualized Reading Materials
- Supplementary Materials
- Special Materials

C. Results

Results of the frequency tabulations are shown in Table I. The table lists fifty materials ranked according to the ones used most frequently by the greatest number of students in all six grades. The number and percent of students using the material for each grade

TABLE I

PREVALENCE OF MOST FREQUENTLY USED READING MATERIALS BY GRADE (ONE-SIX)

Reading Material/Program Category		Number and Percentage of Students Using Each Material													
		Grade 1		Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grades 1 - 6	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
1. Ginn Basic Readers, 360 Program	- Basal	337	21.6	327	21.2	304	18.3	257	17.3	239	15.8	262	18.6	1,726	18.8
2. Bookmark Reading Program	- Basal	337	21.6	162	10.5	251	15.1	258	17.4	215	14.2	212	15.0	1,435	15.6
3. Lippincott Basic Reading	- Linguistic/Phonics	118	7.6	166	10.8	147	8.9	154	10.4	128	8.5	113	8.0	826	9.0
4. Others (Not specified)	- Basal	195	9.3	123	8.0	186	11.2	42	2.8	86	5.7	120	8.5	702	7.7
5. Sheldon Basic Readers	- Basal	173	11.1	97	6.3	110	6.6	82	5.5	145	9.6	92	6.5	699	7.6
6. Bank Street Readers	- Basal	180	11.6	198	12.8	171	10.3	114	7.7	16	1.1	6	.4	685	7.5
7. MacMillan Reading Program	- Basal	78	5.0	53	3.4	177	10.7	126	8.5	178	11.1	69	4.9	671	7.3
8. MacMillan-Series R	- Basal	-	-	45	2.9	92	5.5	34	2.3	74	4.9	71	5.0	316	3.4
9. Ginn Basic Readers, 100 Edition	- Basal	29	1.9	10	.6	25	1.5	29	2.0	66	4.4	69	4.9	228	2.5
10. Betts Basic Readers	- Basal	4	.3	26	1.7	20	1.2	66	4.4	25	1.7	29	2.1	170	1.8
11. Reading Experience and Development (READ)	- Basal	56	3.6	34	2.2	45	2.7	9	.6	15	1.0	3	.2	162	1.8
12. Merrill Linguistic Readers	- Linguistic/Phonics	-	-	-	-	-	-	68	4.6	1	.1	56	4.0	125	1.4
13. Harper and Row Basic Readers	- Basal	-	-	58	3.8	24	1.4	-	-	19	1.3	23	1.6	124	1.4
14. Others (Not specified)	- Individualized Reading	-	-	3	.2	22	1.3	22	1.5	51	3.4	14	1.0	112	1.2
15. Lippincott Basic Curriculum Series	- Basal	25	1.6	-	-	7	.4	4	.3	28	1.8	40	2.8	104	1.1

TABLE I PREVALENCE OF MOST FREQUENTLY USED READING MATERIALS BY GRADE (ONE-SIX) (Continued)

Reading Material/Program Category		Number and Percentage of Students Using Each Material													
		Grade 1		Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grades 1 - 6	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
16. Cambridge Book Co. Reading Series	- Basal	-	-	-	-	-	-	-	-	56	3.4	41	2.9	97	1.1
17. Phonetic Keys to Reading Series	- Linguistic/Phonics	1	.1	66	4.3	-	-	1	.1	14	.9	-	-	82	.9
18. Scott, Foresman Curriculum Foundation Series	- Basal	-	-	17	1.1	-	-	46	3.1	-	-	-	-	63	.7
19. Scott, Foresman Open Highways Program	- Basal	-	-	3	.2	-	-	6	.4	32	2.1	22	1.6	63	.7
20. Others (Not specified)	- Linguistic/Phonics	-	-	2	.1	44	2.6	-	-	2	.1	10	.7	58	.6
21. Open Court Foundation Program	- Linguistic/Phonics	-	-	-	-	24	1.4	-	-	-	-	32	2.3	56	.6
22. D.C. Heath Co., Reading Caravans	- Basal	-	-	-	-	-	-	23	1.5	4	.3	28	2.0	55	.6
23. Holt, Rhinehart, Winston, Basic Reading System	- Basal	-	-	22	1.4	-	-	33	2.2	-	-	-	-	55	.6
24. Ginn Basic Readers, 300 Edition	- Basal	-	-	13	.8	-	-	34	2.3	-	-	-	-	47	.5
25. Readers Digest Services, Inc.	- Supplementary Materials	1	.1	-	-	-	-	22	1.5	1	.1	21	1.6	47	.5
26. Ideal School Supply Reading Readiness Tapes	- Programmed/Structured	16	1.0	1	.1	1	.1	-	-	24	1.6	-	-	42	.5
27. Distar SRA (Englemann)	- Special	-	-	40	2.3	-	-	-	-	-	-	-	-	40	.4
28. Scott, Foresman Reading Systems	- Basal	-	-	-	-	2	.1	-	-	20	1.3	17	1.2	39	.4
29. Teacher Made Materials	- Supplementary Materials	7	.4	9	.6	1	.1	15	1.0	4	.3	1	.1	37	.4
30. Others (Not specified)	- Programmed/Structured	17	1.1	18	1.2	-	-	-	-	-	-	1	.1	36	.4
31. Webster/McGraw Hill- Programmed Reading	- Programmed/Structured	11	.7	22	1.4	-	-	-	-	-	-	-	-	33	.4
32. Scott, Foresman, Bright Horizons	- Basal	-	-	10	.6	-	-	-	-	23	1.5	-	-	33	.4
33. Lyons and Carnahan, Phonics We Use	- Linguistic/Phonics	-	-	-	-	-	-	-	-	-	-	25	1.8	25	.3
34. Others (Not specified)	- Special	1	.1	3	.2	-	-	-	-	2	.1	17	1.2	23	.3

TABLE I PREVALENCE OF MOST FREQUENTLY USED READING MATERIALS BY GRADE (ONE-SIX) (Continued)

Reading Material/Program Category		Number and Percentage of Students Using Each Material													
		Grade 1		Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grades 1 - 6	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
35. Weekly Readers	- Supplementary Materials	-	-	8	.5	-	-	13	.9	-	-	-	-	21	.2
36. Others (Not specified)	- Supplementary Materials	-	-	-	-	-	-	21	1.4	-	-	-	-	21	.2
37. Reading Comprehension Skills Exercises (DCPS)	- Supplementary Materials	-	-	-	-	-	-	-	-	18	1.2	-	-	18	.2
38. Teacher Made Experience Charts	- Language Experience	16	1.0	-	-	1	.1	-	-	-	-	-	-	17	.2
39. SRA Reading Labs	- Individualized Reading	-	-	-	-	-	-	-	-	15	1.0	-	-	15	.2
40. Phono Visual	- Linguistic/Phonics	2	.1	8	.5	1	.1	-	-	-	-	4	.3	15	.2
41. Houghton Mifflin, Reading for Meaning	- Basal	1	.1	-	-	-	-	-	-	6	.4	5	.4	12	.1
42. Variety of Non-Published Materials	- Individualized Reading	-	-	-	-	1	.1	-	-	10	.7	-	-	11	.1
43. Lyons and Carnahan, Curr. Motivation Series	- Basal	1	.1	-	-	4	.2	2	.1	2	.1	-	-	9	.1
44. Houghton Mifflin, Interaction	- Basal	-	-	-	-	-	-	-	-	-	-	5	.4	5	.1
45. D.C. Heath, Communications	- Basal	1	.1	-	-	-	-	2	.1	-	-	1	.1	4	<.1
46. Random House, Structural Reading	- Programmed/Structured	-	-	-	-	-	-	-	-	4	.3	-	-	4	<.1
47. Scott, Foresman, Invitation to Personal Read.	- Supplementary	-	-	-	-	-	-	2	.1	-	-	-	-	2	<.1
48. MacMillan Reading Spectrum	- Individualized	-	-	-	-	-	-	1	.1	-	-	-	-	1	<.1
49. Others (Not specified)	- Language Experience	-	-	-	-	-	-	-	-	-	-	1	.1	1	<.1
50. Silver Burdett, Starter 101	- Programmed/Structured	-	-	-	-	1	.1	-	-	-	-	-	-	1	<.1
Totals		1557	17.0	1544	16.8	1661	18.1	1466	16.2	1514	16.5	1412	15.4	9174	100.0

is also shown. Each material is identified as to the reading program category it belongs. A total of 9,174 students are included in the frequency tabulations. This breaks down to more than 1,400 at each grade level.

D. Discussion

Ginn Basic Readers, 360 Program, a basal series, was the most frequently used reading material across the six grades. It was the main reading material for nineteen percent of all the students. Bookmark Reading Program, another basal series, was second, used by sixteen percent of the students. A Linguistic/Phonics material, Lippincott Basic Reading ranked third. The first six materials in Table I accounted for the three most frequently used materials for each grade as shown.

First six materials from Table I:	Ranking as to frequency of use in grades:					
	One	Two	Three	Four	Five	Six
Ginn Basic Readers, 360 Program	*1st	1st	1st	2nd	1st	1st
Bookmark Reading Program	*1st		2nd	1st	2nd	2nd
Lippincott Basic Reading		3rd		3rd		
Sheldon Basic Readers						
Bank Street Readers	3rd	2nd				
MacMillan Reading Program			3rd		3rd	

Achievement gains of students using these and other materials will be discussed in Chapter IV. Comparison of the major materials based on an analysis of their effectiveness will be discussed in Chapter V.

* = Tie for first

IV. READING MATERIALS AND ACHIEVEMENT GAINS

A. Introduction

What reading score gains are associated with what reading materials? This question is not a simple one to answer in an unambiguous way. A systematic analysis of the nine most frequently used materials is presented in Chapter V. In this chapter, a descriptive picture is given of the simple gains in percentages of reading objectives mastered from fall to spring, as measured by the Prescriptive Reading Test. The gains are shown for each material reported at each grade level. Since, at any one grade level, different reading levels of the same material are used, the picture further shows gains associated with a particular material for the different reading levels reported at each grade level. The picture shows a complex situation; simply knowing the material used does not necessarily lead to the conclusion that the reading level of that material is the same for all students. Furthermore, variations in pretest level make the interpretation of absolute gains difficult, if not impossible. The data do suggest that, at least in some instances, the PRT was not being used appropriately.

B. Method

Tabulation, for each grade, was made of the average percentage of objectives gained for each group of students for whom the teachers reported a particular reading material as being the main material used. Students eligible to be included in the sample had to have taken the same level of PRT pre and post (otherwise "gains" are meaningless). The students also had to have, in the computer file, a valid first and second reading material code, a valid reading level code for the first material (the one used with the student most frequently), and a valid grade code.

C. Results

The results for each grade level are shown in Tables II-VII. Each table shows, for each material, and for each reading level with a sample size of at least three students, the number of students (N) in the valid data pool, the average pretest (Pre) percentage of reading objectives mastered on the PRT, and the average gain (G) in percentage of reading objectives mastered from pretest to posttest. The percentage of reading objectives mastered was determined for each student by dividing the number of objectives passed on a particular administration of the test by the total number of objectives in the level of the test administered. The resulting proportion was multiplied by 100 to make it a percent. The gain (columns labelled G in the tables) is the difference between the posttest and pretest percents.

D. Discussion

Several points are immediately obvious in Tables II-VII. First, for most materials a variety of different reading levels was reported. For example, in grade one there are students for whom teachers reported that they used the Bookmark Reading Program series from reading readiness level (RR) up to second grade or six levels. The reading program data were reported in the spring of 1979. Thus, the "on-grade" reading level would be 1^2 (grade 1, second semester). For the Bookmark Reading Program in grade one, the majority of students was reported by teachers to be using materials below that level. Only 11 of the 174 Bookmark first graders were reported to be using it at the 1^2 level.

Second, it is difficult, if not impossible, to look down a reading level column and pick out with assurance the big gainers and the small gainers. That is because both the sample sizes and the average pretest percentage of reading objectives mastered vary markedly. As a rule of

TABLE II
COMPARISON OF READING PRETEST SCORES AND PRE-POST GAINS
OF STUDENTS USING VARIOUS MATERIALS BY READING LEVEL FOR GRADE ONE

Reading Levels =	RR			PP			P			1^1			1^2			2^1			2^2		
READING MATERIALS	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G
Ginn Basic Readers, 360 Program	23	54.6	16.9	56	63.9	14.4	50	74.4	12.2	31	79.6	9.5	38	72.4	19.9	-	-	-	-	-	-
Bookmark Reading Program	9	48.3	21.1	56	61.4	18.6	51	70.0	14.6	42	69.7	19.6	11	80.0	9.5	5	72.0	19.0	-	-	-
Lippincott Basic Reading	8	43.[illegible]	16.9	24	56.3	22.7	32	63.3	27.5	57	78.7	15.0	24	76.0	20.8	3	95.0	3.3	-	-	-
Sheldon Basic Readers	-	-	-	1[illegible]	56.1	18.6	26	64.8	23.3	23	76.1	18.9	12	81.7	10.4	24	88.3	10.3	-	-	-
Bank Street Readers	3	45.0	16.7	19	57.6	13.4	42	66.0	16.6	58	73.0	19.1	-	-	-	8	83.1	8.8	5	83.7	7.3
MacMillan Reading Program	-	-	-	10	57.5	20.0	9	57.0	23.3	23	63.9	27.8	15	71.5	25.2	6	81.7	18.3	5	79.5	16.2
Ginn Basic Readers, 100 Edition	-	-	-	-	-	-	-	-	-	-	-	-	6	84.2	12.5	-	-	-	-	-	-
Betts Basic Readers	-	-	-	-	-	-	10	80.0	8.8	-	-	-	-	-	-	-	-	-	-	-	-
Lippincott Basic Curriculum Series	-	-	-	3	53.3	16.7	9	75.0	9.4	10	73.0	18.5	-	-	-	-	-	-	-	-	-
Holt, Rhinehart, Winston-Basic Reading	-	-	-	-	-	-	-	-	-	-	-	-	4	78.1	5.8	-	-	-	-	-	-
Webster/McGraw Hill-Programmed Reading	-	-	-	3	55.0	36.7	3	75.0	15.0	-	-	-	-	-	-	-	-	-	-	-	-
Teacher Made Experience Charts	8	55.0	8.1	5	62.0	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

RR = Reading Readiness
PP = Pre Primer 2^1
2^1 = Grade Two, First Semester
2^2 = Grade Two, Second Semester
Pre = Pretest Score
G = Pre-Post Gain

TABLE III

COMPARISON OF READING PRETEST SCORES AND PRE-POST GAINS OF STUDENTS USING VARIOUS MATERIALS BY READING LEVEL FOR GRADE TWO

Reading Levels =	PP			P			1^1			1^2			2^1			2^2			3^1			3^2		
READING MATERIALS	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G
Ginn Basic Readers, 360 Program	14	46.8	9.5	20	53.2	15.3	33	60.4	17.3	49	60.7	27.4	49	69.8	23.7	48	80.8	11.6	27	87.9	7.5	6	84.3	10.9
Bookmark Reading Program	4	45.2	21.1	12	53.5	28.8	3	61.6	29.6	22	55.3	27.1	32	65.8	24.4	42	77.7	15.4	7	79.6	18.0	-	-	-
Lippincott Basic Reading	4	52.4	13.8	23	72.5	22.2	26	57.9	22.4	25	59.6	28.8	32	64.5	28.1	27	81.7	13.0	9	88.1	7.9	3	86.5	10.3
Sheldon Basic Readers	6	58.5	12.8	17	57.4	25.2	11	57.6	28.8	13	42.3	32.6	3	51.6	24.6	7	56.1	27.6	5	77.6	15.2	-	-	-
Bank Street Readers	4	42.6	6.0	9	48.8	16.4	6	44.4	38.5	31	55.5	23.8	49	63.7	12.1	26	67.4	20.5	27	75.2	13.9	-	-	-
MacMillan Reading Program	-	-	-	-	-	-	7	38.4	41.2	7	50.0	42.5	15	72.7	22.9	9	73.8	20.6	-	-	-	-	-	-
MacMillan-Series R	7	37.4	17.0	7	37.1	40.7	-	-	-	9	51.9	36.0	10	71.0	13.1	8	77.7	17.3	-	-	-	-	-	-
Betts Basic Readers	-	-	-	-	-	-	-	-	-	6	44.0	26.2	-	-	-	11	70.3	13.2	-	-	-	-	-	-
Harper and Row Basic Readers	4	69.9	3.5	6	54.4	7.7	4	69.0	1.8	3	-	-19.8	-	-	-	-	-	-	-	-	-	-	-	-
Phonetic Keys to Reading Series	6	52.0	1.6	11	54.1	20.8	15	64.7	22.7	-	-	-	10	67.9	22.1	6	80.6	15.5	-	-	-	-	-	-
Scott, Foresman-Curr. Foundation Series	-	-	-	-	-	-	-	-	-	-	-	-	6	57.9	24.6	4	76.8	8.9	-	-	-	-	-	-
Holt, Rhinehart, Winston-Basic Reading	-	-	-	-	-	-	-	-	-	-	-	-	6	42.1	23.6	7	61.6	23.5	-	-	-	-	-	-
Ginn Basic Readers, 300 Edition	-	-	-	-	-	-	-	-	-	-	-	-	6	77.0	17.1	7	92.9	4.4	-	-	-	-	-	-
Distar SRA	3	78.3	16.7	-	-	-	4	33.3	35.7	4	29.8	58.3	9	54.2	38.6	7	82.5	14.8	4	75.0	22.6	-	-	-
Teacher Made Materials	-	-	-	-	-	-	-	-	-	-	-	-	4	50.6	16.7	-	-	-	-	-	-	-	-	-
Webster/McGraw Hill-Programmed Reading	-	-	-	-	-	-	-	-	-	5	74.0	15.0	5	47.9	25.1	4	56.5	30.4	-	-	-	-	-	-
Weekly Readers	-	-	-	-	-	-	-	-	-	-	-	-	7	53.0	19.0	-	-	-	-	-	-	-	-	-
Phono-Visual	-	-	-	-	-	-	-	-	-	-	-	-	6	28.6	36.1	-	-	-	-	-	-	-	-	-

PP = Pre Primer
2^1 = Grade Two, First Semester
2^2 = Grade Two, Second Semester
Pre = Pretest Score
G = Pre-Post Gain

TABLE IV
COMPARISON OF READING PRETEST SCORES AND PRE-POST GAINS OF
STUDENT USING VARIOUS MATERIALS BY READING LEVEL FOR GRADE THREE

Reading levels =	P			1^1			1^2			2^1			2^2			3^1			3^2			4			5			6		
READING MATERIALS	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G
Ginn Basic Readers, 360 Program	-	-	-	-	-	-	13	35.4	27.0	10	53.0	34.2	28	67.7	20.5	41	71.1	17.2	32	80.5	11.4	13	82.7	4.9	-	-	-	-	-	-
Bookmark Reading Program	8	33.9	19.0	-	-	-	7	55.4	20.5	36	56.9	19.4	38	63.3	16.6	28	57.3	18.7	23	70.4	7.2	26	76.6	11.8	-	-	-	-	-	-
Lippincott Basic Reading	6	48.0	20.3	4	45.8	41.7	20	58.3	29.9	22	65.3	6.7	16	63.7	16.0	25	64.5	11.9	14	65.3	15.7	20	91.7	5.6	-	-	-	-	-	-
Sheldon Basic Readers	-	-	-	-	-	-	6	28.2	12.0	4	31.9	17.6	5	52.8	6.7	18	52.7	19.3	39	74.5	14.7	-	-	-	3	88.0	9.3	-	-	-
Bank Street Readers	4	38.0	11.3	3	35.6	23.0	8	51.6	21.5	23	51.4	18.5	37	54.8	23.7	31	62.0	20.1	22	76.8	11.6	-	-	-	-	-	-	-	-	-
MacMillan Reading Program	-	-	-	-	-	-	-	-	-	7	54.9	21.3	17	62.7	11.3	44	69.4	14.1	37	76.7	5.5	22	90.3	6.2	-	-	-	-	-	-
MacMillan-Series R	-	-	-	3	51.6	29.4	9	51.6	16.0	26	43.8	12.9	4	43.8	17.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ginn Basic Readers, 100 Edition	-	-	-	5	53.8	4.3	-	-	-	-	-	-	3	50.9	24.1	-	-	-	-	-	-	5	72.2	12.8	4	74.3	21.3	-	-	-
Betts Basic Readers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	82.9	23.1
Open Court Foundation Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	64.6	20.1	9	79.6	13.6	-	-	-	-	-	-	-	-	-

P = Primer
2^1 = Grade Two, First Semester
2^2 = Grade Two, Second Semester
Pre = Pretest Score
G = Pre-Post Gain

TABLE V
COMPARISON OF READING PRETEST SCORES AND PRE-POST GAINS OF
STUDENTS USING VARIOUS MATERIALS BY READING LEVEL FOR GRADE FOUR

Reading Levels =	1^1			1^2			2^1			2^2			3^1			3^2			4			5			7		
READING MATERIALS	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G
Ginn Basic Readers, 360 Program	3	39.4	16.0	7	48.4	12.7	15	54.1	17.8	17	62.1	19.6	14	67.9	7.7	14	67.3	8.9	51	64.9	13.0	4	73.5	18.2	-	-	-
Bookmark Reading Program	-	--	-	-	-	-	6	55.3	14.8	30	50.9	18.4	16	66.0	17.1	30	64.6	12.5	59	65.8	11.3	5	79.4	10.0	-	-	-
Lippincott Basic Reading	-	-	-	-	-	-		-	-	9	71.0	23.5	-	-	-	-	-	-	28	46.0	20.9	-	-	-	24	64.2	11.3
Sheldon Basic Readers	-	-	-	-	-	-	3	52.8	40.7	6	77.1	6.9	8	79.0	10.4	5	66.7	20.6	14	77.0	9.1	-	-	-	-	-	-
Bank Street Readers	-	-	-	-	-	-	-	-	-	6	46.0	11.0	14	51.3	14.3	16	72.3	14.4	13	64.7	12.9	-	-	-	-	-	-
MacMillan Reading Program	-	-	-	-	-	-	-	-	-	16	49.4	15.9	10	43.3	11.1	9	51.2	18.2	32	70.7	5.7	8	94.8	-.1	-	-	-
MacMillan-Series R	-	-	-	-	-	-	3	28.7	21.3	7	23.0	20.2	6	31.5	17.1	-	-	-	11	69.4	12.6	-	-	-	-	-	-
Ginn Basic Readers, 100 Edition	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	62.3	7.5	-	-	-	-	-	-
Betts Basic Readers	-	-	-	-	-	-	-	-	-	7	44.8	10.3	4	46.2	10.4	5	58.3	10.6	26	50.4	20.6	3	68.5	18.5	-	-	-
Merrill Linguistic Readers	-	-	-	-	-	-	-	-	-	5	37.2	23.9	-	-	-	8	60.4	18.1	45	77.3	8.3	-	-	-	-	-	-
Lippincott Basic Curr. Series	-	-	-	-	-	-	-	-	-	3	51.9	6.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scott, Foresman-Curr. Foundation Series	-	-	-	-	-	-	-	-	-	3	42.1	20.4	7	65.1	27.4	6	52.3	25.9	16	65.6	12.5	-	-	-	-	-	-
D.C. Heath Co.-Reading Caravans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	79.0	11.0	10	90.8	5.4	-	-	-
Holt, Rhinehart, Winston-Basic Reading	-	-	-	-	-	-	3	52.4	11.9	-	-	-	11	75.0	12.3	7	81.0	13.1	5	52.8	5.6	-	--	-	-	-	-
Ginn Basic Readers, 300 Edition	-	-	-	-	-	-	3	44.4	27.8	6	68.1	1.9	6	86.6	0.0	-	-	-	-	-	-	-	--	-	-	-	-
Readers Digest Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	74.6	10.7	-	-	-
Teacher Made Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	64.8	12.3	-	-	-	-	-	-
Weekly Readers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	42.6	31.5	-	-	-	-	-	-

2^1 = Grade Two, First Semester
2^2 = Grade Two, Second Semester
Pre = Pretest Score
G = Pre-Post Gain

TABLE VI
COMPARISON OF READING PRETEST SCORES AND PRE-POST GAINS OF
STUDENTS USING VARIOUS MATERIALS BY READING LEVEL FOR GRADE FIVE

Reading Levels =	1^2			2^1			2^2			3^1			3^2			4			5			6		
READING MATERIALS	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G
Ginn Basic Reading, 360 Program	3	62.1	15.6	9	71.6	15.9	5	63.7	14.3	19	58.0	8.6	7	42.5	23.7	49	66.8	13.1	43	70.4	16.6	15	87.1	7.1
Bookmark Reading Program	-	-	-	5	35.2	5.3	-	-	-	10	67.8	8.1	33	55.0	14.1	39	62.7	13.5	48	72.2	11.2	16	78.1	13.6
Lippincott Basic Reading	4	28.5	9.0	-	-	-	-	-	-	-	-	-	5	62.8	15.6	15	65.7	13.1	62	69.5	10.0	16	62.5	13.8
Sheldon Basic Readers	-	-	-	-	-	-	-	-	-	10	41.7	33.6	5	63.3	16.7	16	55.0	14.8	34	60.9	16.4	4	50.9	17.5
Bank Street Readers	-	-	-	-	-	-	3	55.6	4.6	-	-	-	5	47.8	21.2	-	-	-	-	-	-	-	-	-
MacMillan Reading Program	4	51.2	41.1	5	66.0	19.6	10	88.1	8.6	3	51.9	12.0	10	61.7	7.1	27	60.4	16.6	26	73.6	13.7	-	-	-
MacMillan-Series R	3	26.0	17.8	-	-	-	-	-	-	5	71.1	12.8	9	49.6	20.3	11	55.0	29.8	14	74.8	14.7	-	-	-
Ginn Basic Readers, 100 Edition	-	-	-	3	27.8	12.4	-	-	-	-	-	-	4	39.6	21.5	14	47.2	17.4	14	64.6	6.6	-	-	-
Betts Basic Readers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	53.8	2.6	3	78.2	-11.5	-	-	-
Reading Experience and Dev. (READ)	-	-	-	-	-	-	-	-	-	-	-	-	3	50.0	18.5	-	-	-	-	-	-	-	-	-
Harper and Row Basic Readers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	82.9	6.2	-	-	-
Lippincott Basic Curr. Series	-	-	-	10	79.2	12.8	-	-	-	-	-	-	-	-	-	8	76.8	6.1	11	63.3	11.8	14	64.0	15.9
Cambridge Book Co. Reading Series	-	-	-	-	-	-	3	74.1	3.7	5	46.1	9.4	13	62.4	14.5	7	58.2	14.5	13	81.1	12.7	-	-	-
Phonetic Keys to Reading Series	-	-	-	-	-	-	12	31.9	12.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scott, Foresman-Open Highways	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	68.8	15.9	-	-	-	-	-	-
Scott, Foresman-Reading Systems	-	-	-	-	-	-	-	-	-	3	34.3	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Scott, Foresman-Bright Horizons	-	-	-	-	-	-	-	-	-	3	69.4	16.7	-	-	-	-	-	-	3	49.7	33.8	-	-	-
Reading Comprehension Skills Exercises	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	72.2	4.6	-	-	-	-	-	-
Variety of Non-Published Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	55.6	29.2	-	-	-

2^1 = Grade Two, First Semester
2^2 = Grade Two, Second Semester
Pre = Pretest Score
G = Pre-Post Gain

TABLE VII
COMPARISON OF READING PRETEST SCORES AND PRE-POST GAINS OF
STUDENTS USING VARIOUS MATERIALS BY READING LEVEL FOR GRADE SIX

Reading Levels →	P			3^1			3^2			4			5			6			7		
READING MATERIALS ↓	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G	N	Pre	G
Ginn Basic Readers, 360 Program	-	-	-	3	50.9	8.3	3	56.5	6.5	22	57.6	13.0	70	66.0	10.3	56	79.8	10.7	-	-	-
Bookmark Reading Program	-	-	-	-	-	-	6	35.2	12.0	9	54.3	6.4	18	64.7	10.8	33	80.1	7.8	-	-	-
Lippincott Basic Reading	4	34.7	0.6	7	35.7	3.6	13	36.4	24.9	4	56.5	13.6	22	65.5	14.7	18	83.8	7.3	22	72.3	3.9
Sheldon Basic Readers	-	-	-	-	-	-	-	-	-	10	52.7	12.3	18	61.0	16.0	17	72.6	13.3	-	-	-
MacMillan Reading Program	-	-	-	-	-	-	3	52.4	13.0	9	38.9	16.8	11	46.8	8.1	19	71.8	7.1	-	-	-
MacMillan-Series R	-	-	-	-	-	-	8	24.3	22.7	16	59.3	14.3	4	75.8	10.6	-	-	-	-	-	-
Ginn Basic Readers, 100 Edition	-	-	-	-	-	-	-	-	-	4	64.8	20.2	4	58.2	23.1	25	76.0	10.4	-	-	-
Betts Basic Readers	-	-	-	-	-	-	3	51.3	16.7	-	-	-	5	61.3	17.9	-	-	-	-	-	-
Merrill Linguistic Readers	-	-	-	-	-	-	5	37.6	22.2	13	58.6	16.1	16	59.4	18.6	9	72.8	15.6	-	-	-
Harper and Row Basic Readers	-	-	-	-	-	-	-	-	-	7	85.0	5.2	6	74.2	3.8	-	-	-	-	-	-
Lippincott Basic Curr. Series	-	-	-	-	-	-	-	-	-	8	66.9	10.5	5	71.5	11.5	11	83.2	9.1	-	-	-
Cambridge Book Co. Reading Series	-	-	-	3	63.0	18.5	-	-	-	3	60.2	15.7	11	80.6	1.2	18	78.7	7.3	-	-	-
Scott, Foresman-Open Highways	-	-	-	-	-	-	-	-	-	7	42.4	18.7	-	-	-	-	-	-	-	-	-
Open Court Foundations Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	93.5	1.5	-	-	-
D.C. Heath Reading Caravans	-	-	-	-	-	-	-	-	-	4	76.0	5.8	4	67.8	-.7	7	71.8	3.0	-	-	-
Readers Digest Services	-	-	-	-	-	-	-	-	-	-	-	-	8	39.9	12.5	-	-	-	4	63.7	9.7
Scott, Foresman Reading Systems	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	71.2	9.3	-	-	-
Houghton Mifflin, Reading for Meaning	-	-	-	-	-	-	-	-	-	-	-	-	4	47.2	10.8	-	-	-	-	-	-

P = Primer
2^1 = Grade Two, First Semester
2^2 = Grade Two, Second Semester
Pre = Pretest Score
G = Pre-Post Gain

thumb, there should be at least 30 students in a particular sample to give one a sense of reliance for this sort of analysis. Otherwise one needs to rely on statistical methods to try to characterize relationships. Even so, examination of the various sample sizes in the tables will suggest that the Evaluation System continues to be under constraints. Expansion to include more schools and students will give us a larger useable sample and, thus, increase the confidence that can be put in findings.

Third, it can be seen that the amount of gain possible is clearly dependent on the starting point of the student. For example, the student starting with a pretest score of 95.0% (See Lippincott Basic Reading, grade one, reading level 2^1) could not possibly gain more than 5.0%. One has to question why those students were administered the same test over again in the spring. This point is discussed again in more detail in Chapter V.

What is not obvious in the tables is that, at any given grade level, for any given material, at any given reading level, the students making up the sample (say, 10 students) may represent several different levels of the PRT. Thus, of the 10 students, six may have taken Level A pre and post, 3 may have taken Level B, and 1 may have taken Level C. Thus, the precise meaning of the gain is general, not specific to a particular test level. The reason for using percentages as scores is that different levels of the PRT have different numbers of objectives. In order to combine scores, some roughly equivalent scale was needed. A further refinement in the picture would be to break the results down further by test level. But again, it is clear from the available data that to do so would be to further reduce already modest sample sizes.

If one wanted to examine the available tables with an eye to considering what materials seem to be associated with greater or lesser gains, one should read down a particular reading level column (perhaps the one that matches the actual grade level). Even then, one needs to be careful to observe the sample sizes and the pretest scores.

E. Conclusions

At each grade level, a variety of materials are used, and they are used at a variety of reading levels. While there is a picture of diversity and complexity, it is not possible to draw conclusions about relative effectiveness from this type of analysis.

Both descriptive pictures and more powerful comparative analyses would be improved by expansion of the data collection to increase sample sizes.

V. COMPARISONS OF MAJOR READING MATERIALS

A. Introduction

Do some reading materials appear to be more effective than others? This question was studied using data collected for school year 1978-79 and methods of analysis previously employed in evaluating types of reading programs. Nine (9) most frequently used reading materials for grades one through six were analyzed. These nine reading materials accounted for 78% of the students with valid reading material data in the 1978-79 Evaluation System computer file. Not all nine materials were used predominantly at all grade levels, although they were prevalent at most grade levels. Analyses were done on a grade by grade basis.

B. Method

The basic research design was a comparison, at each grade level, of the adjusted posttest scores of selected groups of students classified as having used a particular material for their main reading instruction. A reading material was included in this analysis if there were 50 or more students using it who had matched pre and posttest data for the same level of PRT, a valid first reading material code, a valid reading level of first material code, a valid second material code, and a valid grade level code. Thus, only nine of the most prevalent reading materials (Table I) retained adequate sample size.

An analysis of covariance was done for each grade level in which group (material) was the independent variable, posttest percentage of reading objectives mastered on the PRT was the dependent variable, and

pretest percentage of objectives mastered and reading level of the material used were the covariates. Test scores used in statistical analyses were transformed to a logit scale for technical reasons. The student was the unit of analysis.

If, in the overall analysis, regression planes were found not to be parallel (inhomogeneity of regression), then analyses of regions of significant difference between planes (or slopes) were made, first using both covariates, and then using only pretest.

The overall significance level used was .05. For any individual comparisons (of pairs of means, or of pairs of regression slopes or planes), a level of significance maximizing control of the Type I error rate was used. That level was determined by a statistical procedure in which the level of significance was .05/n, where "n" was the number of tests to be made in a set of comparisons.

The nine (9) main materials analyzed in this study are shown in Table VIII with their distribution by grade and the sample sizes in each grade.

Combination classes were assigned a grade level number by averaging the grade values in the class and assigning according to a .5 or more rounding rule. For example, a class with second and third grade students would be given a value of 2.5 (i.e., (2+3)/2=2.5). The 2.5 would be rounded up to 3 by the rounding rule; thus the class would fall in the group of third grade classes. A 4-5 combination class would be classified as a grade 5 class.

TABLE VIII

SAMPLE SIZES FOR MATERIALS COMPARED, BY GRADE LEVEL

Materials Compared	Number of Students by Grade Level					
	1	2	3	4	5	6
1. Bank Street Readers	135	153	126	52	--	--
2. Bookmark Reading Program	154	108	167	141	136	70
3. Ginn Basic Readers, 360 Program	174	225	134	117	150	155
4. MacMillan Reading Program	68	--	126	76	87	--
5. Sheldon Basic Readers	102	65	78	--	70	50
6. MacMillan - Series R	--	--	52	--	--	--
7. Basals Classified as "Other"[1/]	93	80	133	--	--	85
8. Lippincott Basic Reading	94	134	105	68	104	70
9. Merrill Linguistic Readers	--	--	--	58	--	--
Total Students	820	765	921	512	547	430

[1/] Textbooks other than the ones listed were used. These were picked up on the Reading Program Form as "Other, specify."

C. Results

1. Grade One

Samples of students for seven(7) first reading materials were compared: Bank Street Readers, Bookmark Reading Program, Ginn Basic Readers, 360 Program, MacMillan Reading Program, Sheldon Basic Readers, Basals classified as "Other," and Lippincott Basic Reading. The total sample size was 820 students from 53 different classrooms. See Table IX.

There was an overall significant difference between the means of various materials. On the average:

- the highest group (Lippincott Basic Reading) had an adjusted posttest mean that was significantly higher than those of the Bank Street Readers, Bookmark Reading Program, and the Ginn Basic Readers, 360 Program groups; and
- two materials groups (Basals classified as "Other" and MacMillan Reading Program) had significantly higher adjusted posttest means than the group with the lowest adjusted posttest means (Bank Street Readers).

The regression planes (interactions) were not parallel (See Figure 1). Data did show that these relationships tended to depend on how students scored on pretest. That is, there were significant interactions. Thus:

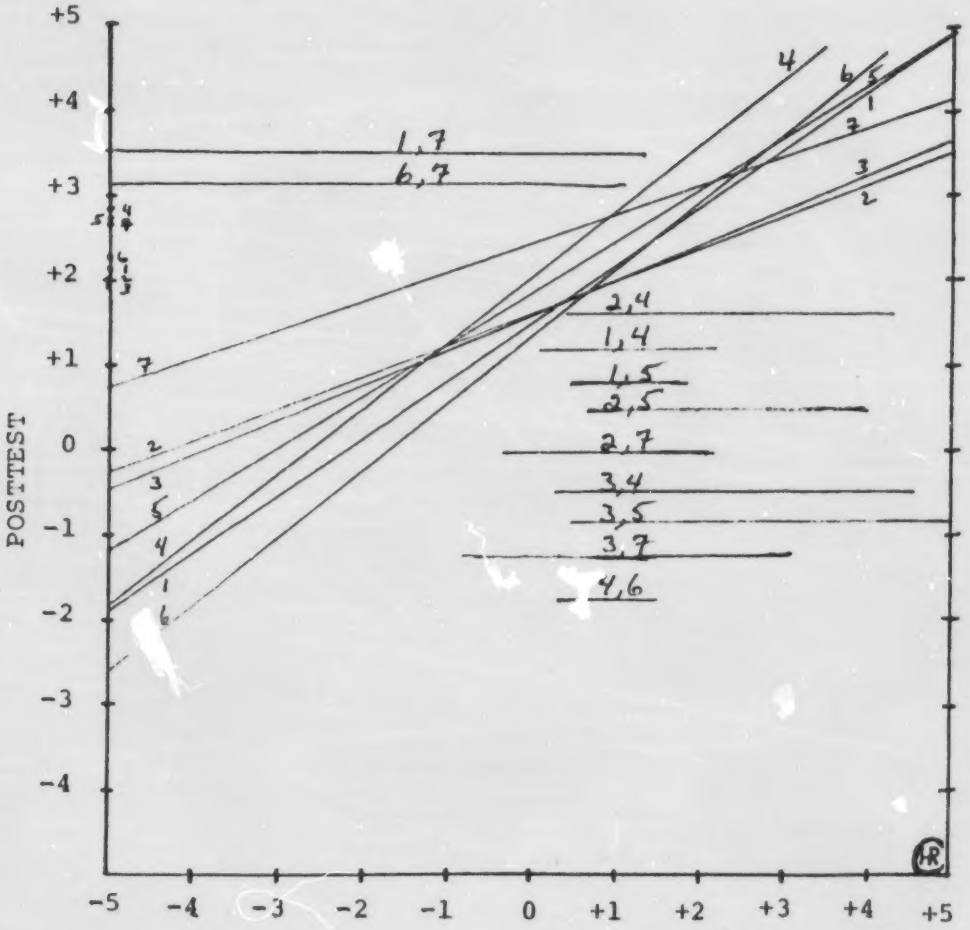
- for students who scored about 75% reading objectives mastered or less on pretest, the Lippincott Basic Reading group had significantly better performance on posttest than the Bank Street Readers and the "Other Basals" groups. For students in those groups scoring higher than about 75% on

TABLE IX STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 1*

Programs Compared	Number of Students	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Adjusted Posttest Mean	Unadjusted Pre-Post Difference	Pretest Range Min	Pretest Range Max	Posttest Range Min	Posttest Range Max
1. Bank Street Readers	135	68.99	16.65	85.38	14.42	85.06	16.39	20.0	100.0	20.0	100.0
2. Bookmark Reading Program	154	67.27	15.02	84.71	11.74	86.10	17.44	0.0	94.4	45.0	100.0
3. Ginn Basic Readers, 360 Program	174	69.66	17.32	84.15	15.60	85.37	14.49	19.2	100.0	0.0	100.0
4. MacMillan Reading Program	68	66.25	15.81	90.05	9.84	88.42	23.80	10.0	95.0	60.0	100.0
5. Sheldon Basic Readers	102	73.71	17.56	90.14	12.52	86.92	16.43	20.0	100.0	30.0	100.0
6. Basals classified as "Other"	93	69.68	14.61	87.24	9.92	89.08	17.56	20.0	95.0	50.0	100.0
7. Lippincott Basic Reading	94	72.61	20.26	91.28	9.15	90.05	18.67	0.0	95.0	60.0	100.0

* All data in this table are based on untransformed measures (i.e., raw percentages). Data shown for each program are in percents.

FIGURE 1 . REGIONS OF SIGNIFICANT DIFFERENCE BETWEEN PROGRAM SAMPLES, GRADE 1



Legend

X,Y : Region of significant difference, or non-significance (NS) between samples.

• (x) on posttest axis: approximate adjusted posttest mean for group x.

Scales are in logits:

± 5 ≃ 0,100 %
± 2 ≃ 10,90 %
± 1 ≃ 25,75 %

pretest there was no significant difference in posttest performance;

- the Lippincott Basic Reading group tended to have significantly better posttest performance than the Bookmark Reading Program and the Ginn Basic Readers 360 Program groups regardless of pretest scores;
- for students who scored about 50% or more on pretest, the MacMillan Reading Program and the Sheldon Basic Readers groups tended to have significantly better posttest performance than the Bookmark Reading Program, and the Ginn Basic Readers, 360 Program groups. For students in these groups who scored below about 50% on pretest, differences between groups were not significant; performance among the groups was comparable; and
- for students who scored about 80% or less on the pretest, the Sheldon Basic Readers group tended to have significantly better posttest performance than the Bank Street Readers group.

These somewhat more complicated relationships occurred when only pretest score (and not reading level of the material) was used to adjust posttest means. They serve as a firm reminder that students, teachers, methods, and environments can be complex, and that any particular administrative decision will not be ideal for all affected by it.

2. Grade Two

Samples of students using six (6) major reading materials were compared: Bank Street Readers, Bookmark Reading Program, Ginn Basic Readers, 360 Program, Sheldon Basic Readers, "Other" Basals,

and Lippincott Basic Reading. The total sample size was 765 students from 48 different classrooms. See Table X.

There was an overall significant difference between the adjusted posttest means, and the regression planes were not parallel. On the average:

- the four materials groups with the highest adjusted posttest means (Lippincott Basic Reading, Bookmark Reading Program, "Other" Basals, and Sheldon Basic Readers, listed in descending order of performance) were significantly greater than the posttest adjusted mean of the lowest scoring group (Bank Street Readers); and
- there were no other significant differences between pairs of group means.

As in Grade One, the Lippincott Basic Reading group ranked first, and the Bank Street Readers group ranked last in adjusted average posttest performance.

The data showed that relationships tended to depend on how students scored on pretest and on the reading level of the material, as well as on pretest score alone.

There were two cases in which both pretest and reading level made a difference. In the first case, the superiority of the Bookmark Reading Program group over the Bank Street Readers group tended to increase as the pretest level went up and the pretest score went down.

The second case was yet a bit more complex. The difference between adjusted posttest means of the Ginn Basic Readers, 360 Program group and the Bank Street Readers group increasingly tended to favor the Ginn group the higher the pretest score and the reading level of the materials. There was a range, however, in which the opposite was true. That range was for students with very high pretest scores and very low reading level of material (essentially in the range of below the 1^2 level, a year or more below grade level).

TABLE X STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 2*

Programs Compared	Number of Students	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Adjusted Posttest Mean	Unadjusted Pre-Post Difference	Pretest Range Min	Pretest Range Max	Posttest Range Min	Posttest Range Max
1. Bank Street Readers	153	62.73	18.66	80.02	20.52	79.69	17.29	11.9	95.2	0.0	100.0
2. Bookmark Reading Program	108	67.83	16.91	89.88	10.49	88.32	22.05	35.7	100.0	47.6	100.0
3. Ginn Basic Readers, 360 Program	225	69.40	19.34	87.16	15.27	85.46	17.76	0.0	97.6	0.0	100.0
4. Sheldon Basic Readers	65	56.59	18.69	81.87	16.03	86.56	25.28	16.7	92.9	35.7	100.0
5. Basals classified as "Other"	80	63.98	18.20	84.78	13.55	87.94	20.80	16.7	95.2	38.1	100.0
6. Lippincott Basic Reading	134	65.71	20.35	88.24	13.73	88.58	22.53	0.0	97.6	38.1	100.0

* All data in this table are based on untransformed measures (i.e., raw percentages). Data shown for each program are in percents.

When posttest scores were adjusted only for pretest, there were similar interactions (Figure 2). Thus:

- for students who scored about 85% or less on pretest, the Lippincott Basic Reading group did better than the Bank Street Readers group. Above 85% the groups were comparable;
- for students who scored about 60% or less on pretest, the Lippincott group did better than the "Other" Basals and the Sheldon Basic Readers groups; and
- for students who scored about average and below average on pretest, the Bookmark and the Ginn groups did better than the Bank Street Readers group.

Generally, then, for the second grade samples analyzed, it would appear that Lippincott Basic Readers and the Bookmark Reading Program made a better showing while Bank Street Readers made the poorest. These relationships, however, did tend to depend upon how students did on pretest and, in some cases, also what level of material was used.

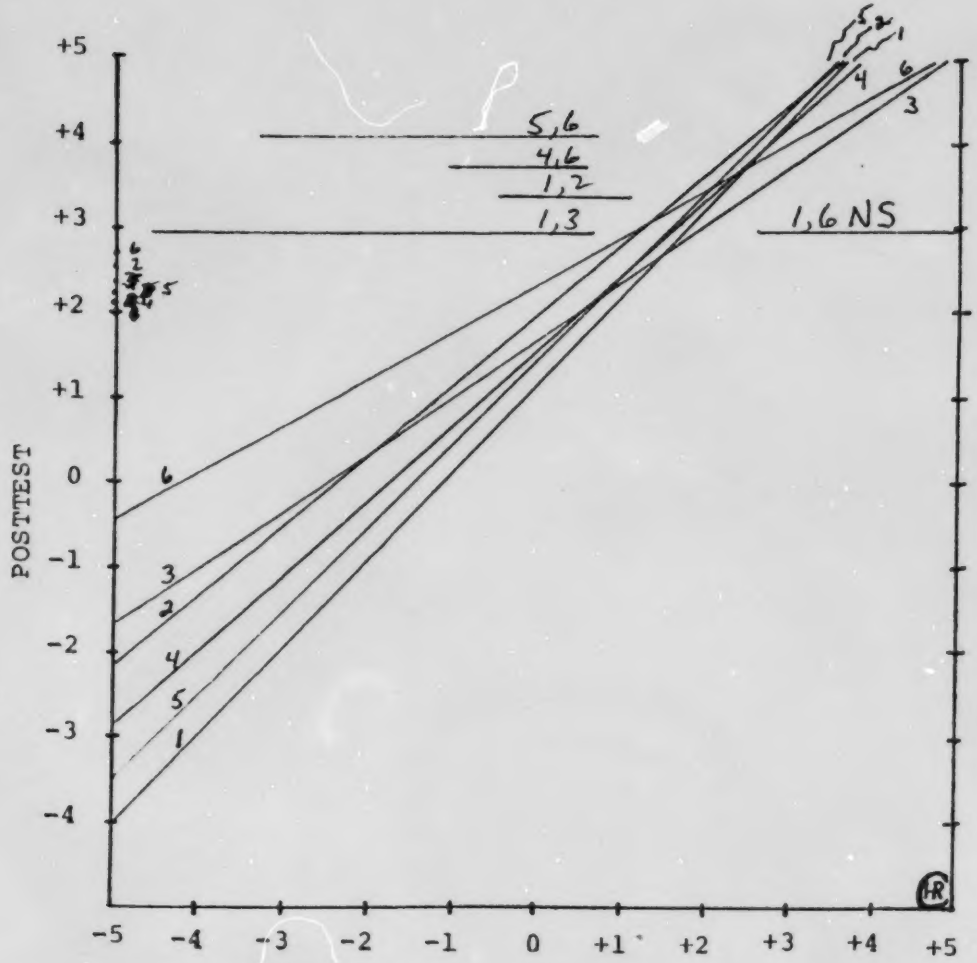
3. Grade Three

Samples of students for eight (8) first reading materials were compared: Bank Street Readers, Bookmark Reading Program, Ginn Basic Readers, 360 Program, MacMillan Reading Program, Sheldon Basic Readers, MacMillan Series R, "Other" Basals, and Lippincott Basic Reading. The total sample size was 921 students from 61 different classrooms. See Table XI.

There was an overall significant difference in the means, but regression planes were not parallel.

While the overall tests of differences between means, and of homogeneity of regression, were significant at the .05 level, none

FIGURE 2 . REGIONS OF SIGNIFICANT DIFFERENCE BETWEEN PROGRAM SAMPLES, GRADE 2



Legend

X,Y : Region of significant difference, or non-signifance (NS) between samples.

- (x) on posttest axis: approximate adjusted posttest mean for group x.

Scales are in logits:

± 5 ≃ 0,100 %
± 2 ≃ 10,90 %
± 1 ≃ 25,75 %

TABLE XI STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 3*

Programs Compared	Number of Students	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Adjusted Posttest Mean	Unadjusted Pre-Post Difference	Pretest Range Min	Pretest Range Max	Posttest Range Min	Posttest Range Max
1. Bank Street Readers	126	57.93	21.80	76.31	19.81	81.00	18.38	13.9	94.4	28.6	100.0
2. Bookmark Reading Program	167	62.40	21.21	77.97	20.43	79.71	15.57	11.1	100.0	0.0	100.0
3. Ginn Basic Readers, 360 Program	134	68.69	20.56	85.86	14.58	83.57	17.17	16.7	97.2	30.6	100.0
4. MacMillan Reading Program	126	73.48	17.85	83.92	17.80	78.19	10.44	27.8	100.0	0.0	100.0
5. Sheldon Basic Readers	78	62.51	25.37	76.91	21.67	77.79	14.40	13.9	100.0	25.0	100.0
6. MacMillan-Series R	52	63.87	19.15	79.86	18.74	80.83	15.99	13.9	97.2	22.2	100.0
7. Basals classified as "Other"	133	64.08	20.97	77.08	20.53	78.22	13.00	13.9	97.2	19.4	100.0
8. Lippincott Basic Reading	105	67.96	19.75	83.78	17.68	82.63	15.82	27.8	100.0	16.7	100.0

* All data in this table are based on untransformed measures (i.e., raw percentages). Data shown for each program are in percents.

of the individual comparisons of pairs of means or pairs of regression planes or slopes met the more stringent level of significance (in this case, the .0018 level of significance) used to guard against finding individual group differences by chance alone. The results thus suggest that for these samples at this grade level, the groups could be considered comparable in performance.

As Table XI shows, there was relatively little spread between the adjusted posttest means of the eight groups (about six percentage points).

4. Grade Four

Samples of students for six (6) major reading programs were compared: Bank Street Readers, Bookmark Reading Program, Ginn Basic Readers, 360 Program, MacMillan Reading Program, Lippincott Basic Reading, and Merrill Linguistic Readers. The total sample size was 512 students from 44 different classrooms.

There was no overall significant difference between the means of the groups, but there was a significant interaction (regression planes were not parallel). Table XII summarizes test score results.

There were no significant interactions when pairs of groups were compared taking into account both pretest and reading level of material. There were two significant interactions when only pretest was considered (See Figure 3):

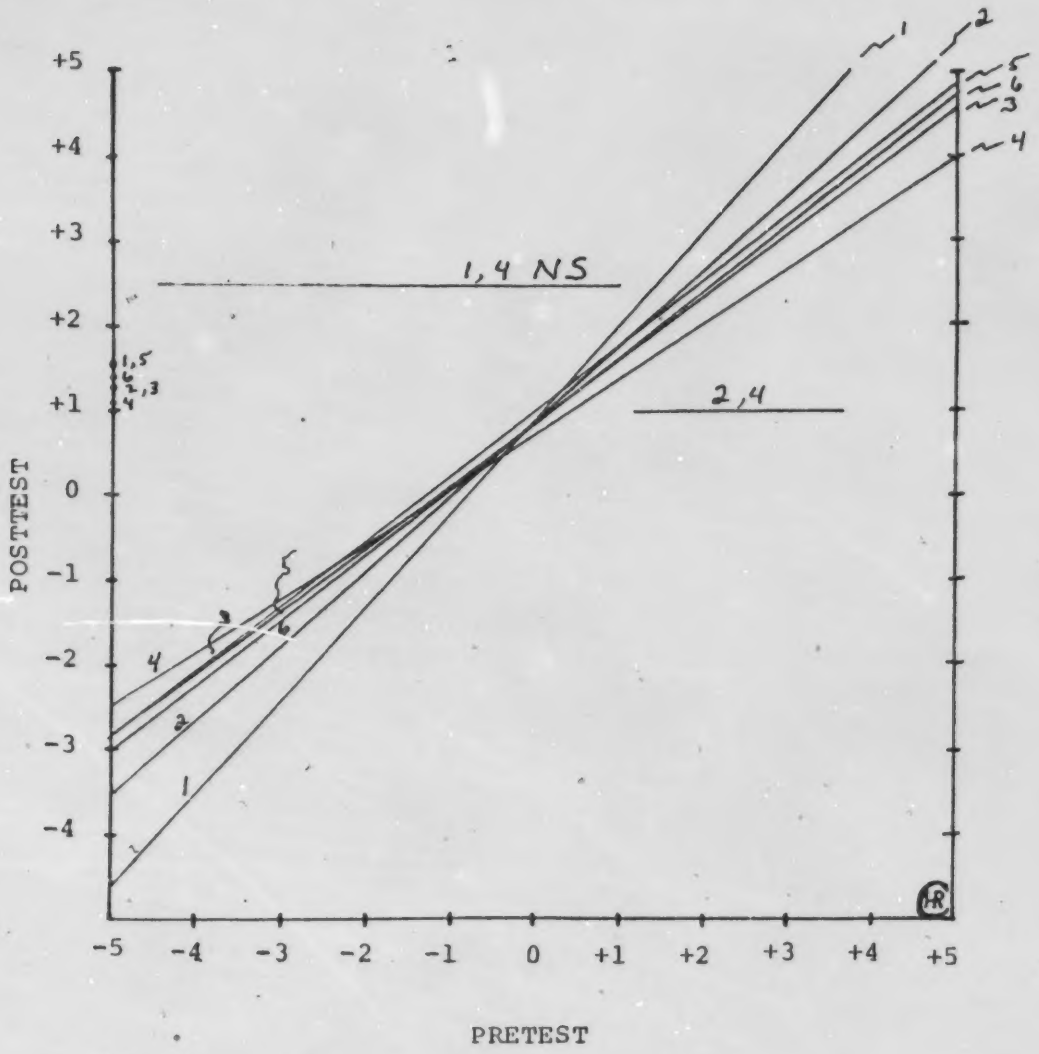
- for students who scored well above average on pretest (about 75% or better), the Bookmark Reading Program group did significantly better than the MacMillan Reading Program group; and

TABLE XII STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 4*

Programs Compared	Number of Students	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Adjusted Posttest Mean	Unadjusted Pre-Post Difference	Pretest Range Min	Pretest Range Max	Posttest Range Min	Posttest Range Max
1. Bank Street Readers	52	59.15	22.56	71.92	23.00	73.96	12.77	8.3	100.0	11.1	100.0
2. Bookmark Reading Program	141	63.08	18.87	76.46	17.23	75.83	13.38	22.2	100.0	27.8	100.0
3. Ginn Basic Readers, 360 Program	117	63.30	18.33	77.20	19.64	76.46	13.90	16.7	94.4	0.0	100.0
4. MacMillan Reading Program	76	62.11	25.44	71.43	22.47	71.45	9.32	8.3	100.0	19.4	100.0
5. Lippincott Basic Reading	68	52.47	23.97	70.46	20.73	76.89	17.99	8.3	94.4	16.7	97.2
6. Merrill Linguistic Readers	58	71.56	17.99	82.52	12.05	76.16	10.96	16.7	94.4	44.4	100.0

* All data in this table are based on untransformed measures (i.e., raw percentages). Data shown for each program are in percents.

FIGURE 3 . REGIONS OF SIGNIFICANT DIFFERENCE BETWEEN PROGRAM SAMPLES, GRADE 4



Legend

X,Y : Region of significant difference, or non-signifance (NS) between samples.

- (x) on posttest axis: approximate adjusted posttest mean for group x.

Scales are in logits:

± 5 ≃ 0,100
± 2 ≃ 10,90
± 1 ≃ 25,75

- the Bank Street Readers group also did significantly better than the MacMillan Reading Program group for students with above average pretest scores.

Other than these two cases, the programs compared could be considered comparable in performance for the samples of students involved.

5. Grade Five

Samples of students for five (5) major reading materials were compared: Bookmark Reading Program, Ginn Basic Readers, 360 Program, MacMillan Reading Program, Sheldon Basic Readers, and Lippincott Basic Reading. The total sample size was 547 students from 46 different classes. See Table XIII.

There was an overall significant difference between means, and the regression planes were not equal (there were significant interactions). On the average:

- the Ginn Basic Readers, 360 Program group and the MacMillan Reading Program group did significantly better than the Lippincott Basic Reading group; and
- the MacMillan Reading Program group also did significantly better than the Bookmark Reading Program group.

There were two cases in which there was a significant interaction of adjusted posttest scores with both pretest and reading level of material. These interactions tended to make the relationships described above a little more complex. In the first case, for students using the material at a reading level a year or more below grade level, the lower the reading level of the material and the higher the pretest score, the greater the advantage in performance

TABLE XIII STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 5*

Programs Compared	Number of Students	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Adjusted Posttest Mean	Unadjusted Pre-Post Difference	Pretest Range Min	Pretest Range Max	Posttest Range Min	Posttest Range Max
1. Bookmark Reading Program	136	64.69	20.10	76.86	18.51	76.82	12.17	13.9	100.0	13.9	100.0
2. Ginn Basic Readers, 360 Program	150	67.30	21.25	81.70	15.94	80.38	14.40	0.0	100.0	25.0	100.0
3. MacMillan Reading Program	87	66.29	18.85	81.76	16.27	81.58	15.47	23.1	100.0	26.9	100.0
4. Sheldon Basic Readers	70	56.10	22.82	75.29	17.59	79.88	19.19	13.9	94.4	22.2	100.0
5. Lippincott Basic Reading	104	65.26	22.78	76.50	19.95	75.52	11.24	5.6	100.0	11.1	100.0

* All data in this table are based on untransformed measures (i.e., raw percentages). Data shown for each program are in percents.

of the MacMillan Reading Program group over the Bookmark Reading Program group. For students using the materials at or above grade level, there was no significant difference between the groups. This is consistent with other findings of the Evaluation System that, especially in the intermediate grades, performance tends to be negatively correlated with reading level of the main material used. That is, other things equal, the higher the reading level of the main material, the lower the relative achievement gain. In this case, we see that this negative relationship is also related to pretest score.

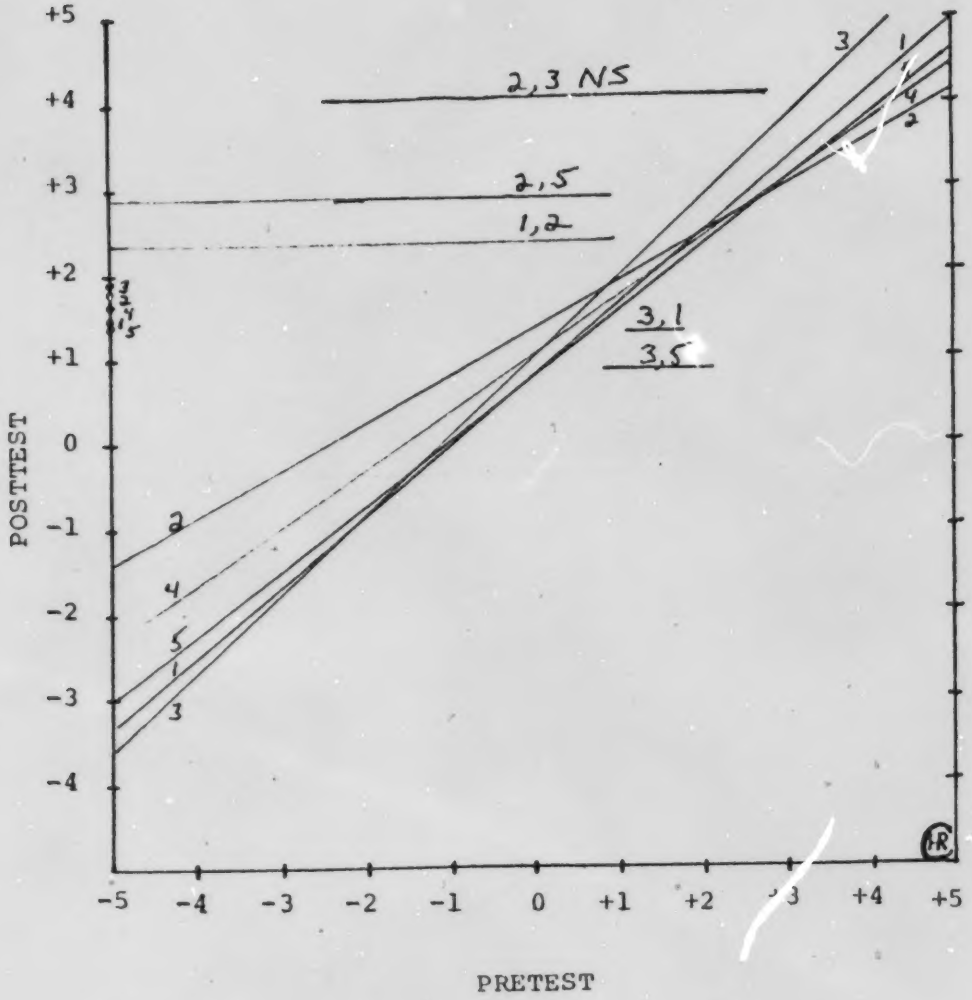
In the second case, the relationship was similar, but limited to students with below average pretest scores. For such students, the Ginn Basic Readers, 360 Program group did increasingly better than the Bookmark Reading Program group as reading level of the materials in both groups went down.

In both cases, there was a point beyond which if students had very low pretest scores and used readers well below grade level, the differences in performance between groups tended to diminish, although even the diminished differences remained significant at the .005 level. Common sense suggests that should be so; such students learned little as measured by the tests.

When posttest scores were adjusted only for pretest, the following interactions were significant (See Figure 4):

- the better performance of the Ginn Basic Readers, 360 Program group was limited to students who scored around average or below on pretest when the comparison was with the Bookmark Reading Program and Lippincott Basic Reading groups; and

FIGURE 4 . REGIONS OF SIGNIFICANT DIFFERENCE BETWEEN PROGRAM SAMPLES, GRADE 5



Legend

X,Y : Region of significant difference, or non-signifance (NS) between samples.

• (x) on posttest axis: approximate adjusted posttest mean for group x.

Scales are in logits:

± 5 ≃ 0,100
± 2 ≃ 10,90
± 1 ≃ 25,75

- by contrast, the better performance of the MacMillan Reading Program group over the Bookmark and Lippincott groups was limited to students who scored above average on pretest.

6. Grade Six

Samples of students for five (5) main reading materials were compared: Bookmark Reading Program, Ginn Basic Readers, 360 Program, Sheldon Basic Readers, Basals classified as "Other," and Lippincott Basic Reading. The total sample size was 430 students from 35 different classrooms.

There was no overall significant difference in means, and there was no significant interactions. Thus, the programs compared may be considered comparable in performance for the samples of students involved. Table XIV summarizes the untransformed test data.

7. General

As one can see from Tables IX-XIV there was a number of students at every grade level who, on (fall) pretest, scored either 0% or 100%, yet was administered the same level test in the spring (See columns labelled "Pretest: Min., Max."). This is a disturbing result. One must raise serious questions about the guidelines for PRT administration, or the implementation of them, when numbers of students for whom the test was clearly too hard or too easy were given the same level seven months later. This misapplication of the criterion-referenced tests both deprives the teacher of a useful diagnosis of need, and confounds the meaning of evaluation results.

TABLE XIV STATISTICAL DATA FOR TYPES OF MATERIALS COMPARED, GRADE 6*

Programs Compared	Number of Students	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Adjusted Posttest Mean	Unadjusted Pre-Post Difference	Pretest Range Min	Pretest Range Max	Posttest Range Min	Posttest Range Max
1. Bookmark Reading Program	70	65.49	25.92	74.63	22.11	74.43	9.14	8.0	100.0	22.2	100.0
2. Ginn Basic Readers, 360 Program	155	69.70	20.86	80.60	17.23	76.93	10.90	5.0	100.0	8.3	100.0
3. Sheldon Basic Readers	50	61.43	22.85	75.61	21.43	77.50	14.18	11.5	100.0	11.5	100.0
4. Basals classified as "Other"	85	63.80	22.56	75.20	22.32	75.32	11.40	5.6	100.0	10.0	100.0
5. Lippincott Basic Reading	70	58.00	28.16	70.15	27.51	76.98	12.15	3.9	100.0	5.6	100.0

* All data in this table are based on untransformed measures (i.e., raw percentages). Data shown for each program are in percents.

D. Discussion

For four of the six grade levels, (grades 3 and 6 being the exceptions), it was possible to show a statistically reliable difference in the posttest performance of groups of students associated with at least some of the main reading materials used in the Evaluation System schools. These differences were based on the comparison of posttest score means adjusted for differences between groups in pretest scores and the reading level at which the material was used with different individuals. It was also found in most cases, however, that students associated with a particular program tended to perform differently relative to other programs depending on the general level of their pretest scores, and, in a few cases, the reading level of the material. Those relationships are called interactions, and they have been described.

Before undertaking to summarize what appear to be the main results of this analysis, it is appropriate to state a few factors to be considered in drawing conclusions.

First, the results pertain only to students who were administered the same level of PRT pre and post in 1978-79, and for whom there were valid data available. The percentage of "test-level matched" students is about 70%. The remaining 30% were administered either a higher level of PRT at posttest (that was the vast majority of the 30%) or lower level. Since the D.C. Public School System has not undertaken a study to equate

scores for different levels, no statement can be made about the "changers," since they can not meaningfully be included in studies of of relative gain.

Another problem for the evaluator is missing data. Any studies of the kind described here depend on complete data for the variables involved. If a particular student, otherwise eligible to be included in the analysis, is missing just one element of data, the student is excluded from the whole study. That one element might be, for example, completion of one item on one form. Just how serious a problem that can be, can easily be seen with the 1978-79 data file. About 58% of the approximately 14,000 students in the Evaluation System were eliminated from inclusion in the comparison analyses. The total pool available (with matched pre and posttest data for the same level of PRT, a valid first reading material code, a valid reading level of first material code, a valid second material code, and a valid grade level code) was 5,859 students - a mere 42% of the total file.

In many instances missing data were due to the lack of valid student identification numbers. The lack of valid numbers hindered the merger of various student files.

A second factor to consider in relation to the results of this study is that it has concentrated only on the main reading material reportedly used by the students involved. Some teachers may use two or more materials (with varying degrees of frequency) with individual students. It is entirely possible that a particular Basal, for example, used in conjunction with a linguistic/phonics material can have quite different effects than when used in conjunction with a language experience material. The implication is two different reading programs. The final Evaluation System Report for 1978-79, to be issued subsequent to this one, will provide results of analyses of material combinations.

Third, in this study the teacher variables which have to play an important part in student outcomes have not been included. Some teachers used one main material with some members of their class, and a different material with others. Thus, their influence was represented in several materials that were compared. It is obvious that teachers have varying degrees of preparation, teaching experience, interests, skills and motivation. Each and/or all of these teacher variables might affect the results. Other teacher variables (absence and turnover), though not included in this study, are included in the final report.

Fourth, it must be seriously taken into consideration that the school system revised the PRT and PRT between 1978-79 and 1979-80 and that differences in patterns of results between those two years may occur that are attributable to changes in the tests. Therefore, the replication of the study in 1980-81 will be critical.

With all these caveats in mind, a synthesis will now be proposed. This synthesis, aimed at trying to help decision-makers (Board of Education members, administrators, teachers, specialists) is based on the assumption that one would like a general idea of how the materials analyzed in this study stand in terms of general merit. We shall grade them on a three-tier scale of Good, Average, Below Average with the understanding that:

- the scale is relative (e.g., Good takes its meaning only in relation to the other materials analyzed at a given grade level using the PRT as a measure);
- the three-tier scale ignores interactions, which have been shown to be important;
- some materials will be classified in one category or another when in fact there is no statistical difference between them.

The general merit of each material, for each grade, is based on the rank order of the adjusted posttest means. Since different materials were analyzed at different grade levels (See Tables IX-XIV), the rank order for each grade level was converted to a percentage (e.g., the top ranking material for a particular grade gets a percentage of 100, the bottom ranking

one a percentage of 0). The overall percentage scale was then divided into three roughly equal parts such that:

68 - 100 = Good

35 - 67 = Average (Aver.)

0 - 34 = Below Average (Bel. Aver.)

The results of this scale applied to the materials, shown in Table XV, are comparable to those presented on pages 23 through 40.

It is clear, from the table, that the most consistently higher rating for most grades was that associated with Lippincott Basic Reading, a linguistic/phonic type of material. As you look at each individual grade you will see that at least two materials were rated "good" for that grade. It will be interesting to see whether this pattern continues upon replication with the 1979-80 data.

E. Conclusions

From the data, thus far, the conclusions are:

- the most consistently effective material across grades was a linguistic/phonic series (Lippincott Basic Reading);
- no material was consistently more effective or less effective at all grade levels;
- while the most effective materials at most grade levels differ significantly from the least effective materials, they do not differ significantly from each other or from materials of intermediate effectiveness;

TABLE XV

A GENERAL MERIT RATING OF THE NINE MOST PREDOMINANTLY USED READING MATERIALS BY GRADE LEVEL

Materials		Grades					
		1	2	3	4	5	6
1. Lippincott Basic Reading	-L/P	Good	Good	Good	Good	Bel. Aver.	Aver.
2. Ginn Basic Readers, 360 Program	-B	Aver.	Aver.	Good	Bel. Aver.	Good	Good
3. MacMillan Reading Program	-B	Good		Aver.	Bel. Aver.	Good	
4. Bank Street Readers	-B	Bel. Aver.	Bel. Aver.	Good	Good		
5. MacMillan-Series R	-B			Aver.			
6. Merrill Linguistic Readers	-L/P				Aver.		
7. Sheldon Basic Readers	-B	Good	Bel. Aver.	Bel. Aver.		Bel. Aver.	Good
8. Bookmark Reading Program	-B	Bel. Aver.	Good	Bel. Aver.	Aver.	Bel. Aver.	Bel. Aver.
9. Basals Classified as "Other"	-B	Aver.	Aver.	Bel. Aver.			Bel. Aver.

L/P = A Linguistic/Phonics Material
B = A Basal Material
Bel. = Below
Aver. = Average

- there were two grade levels (3,6) in which no statistically significant difference among the materials analyzed could be found; and
- while in most cases it is possible to show significant differences on the average between more effective and less effective materials, these average differences need to be considered in light of the fact that relationships also tended to depend on the pretest score of the student, and the reading level of the material used,

VI. SAME SERIES OF READING MATERIALS USED ACROSS GRADE LEVELS

A. Introduction

Is there a benefit to students if the same reading material series are used at each successive grade level? A preliminary study of this question was made, using data for the 1978-79 school year. There were feelings among some school principals that using the same reading series across grade levels might be associated with somewhat better reading scores on the Prescriptive Reading Test (PRT). The results presented here, however, cannot be taken as conclusive. The analysis done must be regarded as the first in a series of analyses that need to be made to investigate a particularly complex question.

B. Method

The research design employed to study the question was to compare the posttest reading scores of children in schools that tend to use the same reading material series in several succeeding grades (Uniformity Group) with the posttest reading scores of children in schools that use a different material series at most grades (Non-Uniformity Group). Thus, for each grade level, scores for two groups were compared. The comparison made for each grade level was an analysis of covariance wherein Group was the independent variable, posttest reading score was the dependent variable, and pretest score and reading level of the material were the covariates. The individual student was the unit of analysis, and the results pertain only to students who had the same level of the PRT pre and post (approximately 70% of all students).

The Uniformity and Non-Uniformity Groups were selected by determining the total percentage of students in each school who used a particular text as the primary or main reading material. Thirty-three (33) of the 34 Evaluation System elementary schools were involved. Of the 33 schools, eight (8) schools had more than 75% of their student body using the same reading series within the school. Students from those 8 schools were classified as being in the Uniformity Group. Thus, the concept of uniformity applies to the individual school and its students. The eight schools did not all use the same reading series. Five of the eight schools were using Ginn Basic Readers, 360 Program. Two were using Lippincott Basic Reading, and one was using a Basal Series not specified.

The Non-Uniformity Group was selected by determining eight schools that had the lowest percentage of students using the most commonly reported material for the school. Thus, the predominant series reported for a school in the Non-Uniformity Group was used by 33% or less of the students in that school.

Once the two groups of schools were identified, then the students from those groups were classified by computer as being in the Uniformity or Non-Uniformity Group. Thereafter, an analysis of covariance was done for each grade level, 1 - 6, separately. The .05 level of significance was used at each grade level to determine whether or not the adjusted posttest means of the two groups could be considered to be statistically different. The same level of significance was used in each case to determine whether or not the regression planes of the two groups were parallel

(homogeneous). If they were not, the analysis of covariance was repeated using only pretest as the covariance. If that analysis showed a significant lack of homogeneity between the two groups, then Neymann-Johnson regions of significant difference between the regression lines were computed. All statistical analysis involving test scores were made using percentages of objectives mastered (the test scores) converted to a logit scale for technical reasons.

C. Results

Table XVI gives a summary of the statistics for the two groups for each grade level. The test scores are in percentages of objectives mastered, and the posttest percentages shown are unadjusted for differences in reading level and in pretest. In no case was the order of results significantly reversed by adjusting for those differences.

There was a significant difference between groups at grade 5; the Uniformity Group's adjusted posttest mean was significantly higher than the adjusted posttest mean of the Non-Uniformity Group.

D. Discussion

The one significant difference (at the 5th grade level) favored the Uniformity Group. With the exception of grades 1 and 4, all other adjusted posttest means favored the Uniformity Group, although significantly so only at grade 5. It would be premature, however, to adopt a uniformity policy based on this preliminary analysis. The reasons for this caution are important.

First, students in the two groups were not selected because they were members of the "uniformity" and "non-uniformity" schools during 1978-79, they had also been members of those schools in

TABLE XVI

SUMMARY STATISTICS OF COMPARISON GROUPS BY GRADE

Grade	Group	N	Average Reading Level of Material*	Unadjusted Pretest Mean	Unadjusted Posttest Mean
1	Uniformity	235	3.00	70.85%	84.71%
	Non-Uniformity	115	3.71	71.96%	90.18%
2	Uniformity	307	5.30	68.57%	87.49%
	Non-Uniformity	150	5.73	63.59%	87.06%
3	Uniformity	211	8.00	68.70%	85.76%
	Non-Uniformity	140	7.01	65.32%	80.58%
4	Uniformity	154	8.97	55.82%	71.08%
	Non-Uniformity	139	8.77	66.00%	77.62%
5	Uniformity	283	10.05	67.58%	80.34%
	Non-Uniformity	169	9.53	61.57%	75.99%
6	Uniformity	229	10.74	66.08%	76.66%
	Non-Uniformity	197	10.78	68.35%	77.98%

* Reading Level is a coded variable, ranging from 1 (Reading Readiness) to 15 (Grade 9 or above). For reference purposes: 3 = Primer Level; 5 = Level 1^2; 7 = Level 2^2; 8 = Level 3^1; 9 = Level 3^2; 10 = Level 4.

prior years. Except, of course, for the 1st grade students, most students probably had been members of the same schools in prior years, but some undoubtedly had not. In further analyses, we will want to control for that factor, since it obviously bears on determining the cumulative effect of using or not using the same reading series at each grade level. That is, we need to use the Evaluation System's longitudinal capability to control the "amount of exposure" variable.

Second, the definition of uniformity or non-uniformity applies, as we have said, to the school as a whole. Uniformity was defined as the percentage of students in all grades reported to have used the most frequently reported material for the school as a whole. We used 75% as the minimum percentage for classifying a school as "Uniform." Because a school was identified as using a uniform reading program, one should not conclude that the program was used equally in all grades. For example, one elementary school had a uniformity rating of 95.3% for the school as a whole. That percentage applied to the use of the Ginn Basic Readers, 360 Program. Here, however, are the percentages of students at each grade level using that as their main material in that school:

Grade 1: 98.6%

Grade 2: 95.5%

Grade 3: 100%

Grade 4: 69.0%

Grade 5: 97.3%

Grade 6: 100%

The uniformity percentage was high, except in grade 4. This variability is characteristic of the high uniformity schools. In

future analyses we will want to take such variations into account.

Third, in this study only the main material used by students was considered. Many teachers use a second reading material with their students. In future analyses we will want to consider material combinations.

Fourth, the data in the present study do not tell us how schools came to agree to use the same series throughout the grades, or what special training and resource persons were needed.

Until the foregoing factors, and others, are examined, we believe it would be premature to adopt a uniformity policy for the school system as a whole. Principals, teachers and resource persons could, however, be encouraged to study and explore such a policy for their schools. These preliminary results support such investigation.

E. Conclusion

There is some indication that students in schools that tend to use the same reading material series within and across grades perform better on the PRT than students in schools whose reading material series are highly varied within and across grades. For a number of reasons, however, it would be premature to recommend a systemwide policy of uniformity.

APPENDIX A

EVALUATION SYSTEM SCHOOLS

REGION A (N=11)

Amidon
Bowen
Congress Heights
Friendship
Hendley
Malcolm X
McCogney
Savoy
Syphax
Walker-Jones
Wilson, J.O.

REGION B (N=8)

Hardy
Hyde
Key
Lafayette
Mann
Petworth
Stoddert
Whittier

REGION C (N=7)

Bancroft
Bruce-Monroe
Bunker Hill
Cleveland
Meyer
Noyes
Shaed

REGION D (N=8)

Beers
Benning
Blow
Davis
Goding
Miner
Thomas
Weatherless

Total Schools = 34

APPENDIX B

SCHOOL NAME

DATE: INT. INIT.:

TEACHING SITUATION

(a) (a) (a) (a) (a)
(1) (1) (1) (1) (1)

CLASSROOM

- Regular
- EMH
- Other

IS AIDE

- Paid?
- Volunteer?

ROOM

(A) (A) (0) (0) (0)
(B) (B) (1) (1) (1)
(C) (C) (2) (2) (2)
(D) (D) (3) (3) (3)
(E) (E) (4) (4) (4)
(F) (F) (5) (5) (5)
(G) (G) (6) (6) (6)
(H) (H) (7) (7) (7)
(I) (I) (8) (8) (8)
(J) (J) (9) (9) (9)
(K) (K)
(L) (L)
(W) (W)

GRADE

- Pre K
- Kg
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

- Ungraded K-6
- Ungraded K-3
- Ungraded 4-6
- 3-7 year olds
- 4-8 year olds
- 8-10 year olds
- 10-12 year olds

AIDE

HOURS PER WEEK

(0) (0)
(1) (1)
(2) (2)
(3) (3)
(4) (4)
(5) (5)
(6) (6)
(7) (7)
(8) (8)
(9) (9)

TEACHER'S NAME (Last, First, Initial)

AIDE'S NAME (Last, First, Initial)

Is there a reading resource teacher available?
- Yes
- No

Is there a math resource teacher available?
- Yes
- No

NUMBER ELIGIBLE FOR FREE LUNCH STUDENTS

(0) (0)
(1) (1)
(2) (2)
(3) (3)
(4) (4)
(5) (5)
(6) (6)
(7) (7)
(8) (8)
(9) (9)

 # OF APPLICATIONS APPROVED FOR FREE LUNCH

(0) (0)
(1) (1)
(2) (2)
(3) (3)
(4) (4)
(5) (5)
(6) (6)
(7) (7)
(8) (8)
(9) (9)

 # OF APPLICATIONS APPROVED FOR REDUCED COST LUNCH

(0) (0)
(1) (1)
(2) (2)
(3) (3)
(4) (4)
(5) (5)
(6) (6)
(7) (7)
(8) (8)
(9) (9)

TOTAL MEMBERSHIP IN CLASS

(0) (0)
(1) (1)
(2) (2)
(3) (3)
(4) (4)
(5) (5)
(6) (6)
(7) (7)
(8) (8)
(9) (9)

SCHOOL NO.

(0) (0) (0) (0)
(1) (1) (1) (1)
(2) (2) (2) (2)
(3) (3) (3) (3)
(4) (4) (4) (4)
(5) (5) (5) (5)
(6) (6) (6) (6)
(7) (7) (7) (7)
(8) (8) (8) (8)
(9) (9) (9) (9)

TEACHER NUMBER

(0) (0) (0) (0) (0) (0) (0) (0) (0)
(1) (1) (1) (1) (1) (1) (1) (1) (1)
(2) (2) (2) (2) (2) (2) (2) (2) (2)
(3) (3) (3) (3) (3) (3) (3) (3) (3)
(4) (4) (4) (4) (4) (4) (4) (4) (4)
(5) (5) (5) (5) (5) (5) (5) (5) (5)
(6) (6) (6) (6) (6) (6) (6) (6) (6)
(7) (7) (7) (7) (7) (7) (7) (7) (7)
(8) (8) (8) (8) (8) (8) (8) (8) (8)
(9) (9) (9) (9) (9) (9) (9) (9) (9)

START

(0) (0) (0)
(1) (1) (1)
(2) (2) (2)
(3) (3) (3)
(4) (4) (4)
(5) (5) (5)
(6) (6) (6)
(7) (7) (7)
(8) (8) (8)
(9) (9) (9)

END DAY

(0) (0) (0)
(1) (1) (1)
(2) (2) (2)
(3) (3) (3)
(4) (4) (4)
(5) (5) (5)
(6) (6) (6)
(7) (7) (7)
(8) (8) (8)
(9) (9) (9)

ABSENT

Sem. 1	Sem. 2
(0) (0)	(0) (0)
(1) (1)	(1) (1)
(2) (2)	(2) (2)
(3) (3)	(3) (3)
(4) (4)	(4) (4)
(5) (5)	(5) (5)
(6) (6)	(6) (6)
(7) (7)	(7) (7)
(8) (8)	(8) (8)
(9) (9)	(9) (9)

AIDE NUMBER

(0) (0) (0) (0) (0) (0) (0) (0) (0)
(1) (1) (1) (1) (1) (1) (1) (1) (1)
(2) (2) (2) (2) (2) (2) (2) (2) (2)
(3) (3) (3) (3) (3) (3) (3) (3) (3)
(4) (4) (4) (4) (4) (4) (4) (4) (4)
(5) (5) (5) (5) (5) (5) (5) (5) (5)
(6) (6) (6) (6) (6) (6) (6) (6) (6)
(7) (7) (7) (7) (7) (7) (7) (7) (7)
(8) (8) (8) (8) (8) (8) (8) (8) (8)
(9) (9) (9) (9) (9) (9) (9) (9) (9)

START

(0) (0) (0)
(1) (1) (1)
(2) (2) (2)
(3) (3) (3)
(4) (4) (4)
(5) (5) (5)
(6) (6) (6)
(7) (7) (7)
(8) (8) (8)
(9) (9) (9)

END DAY

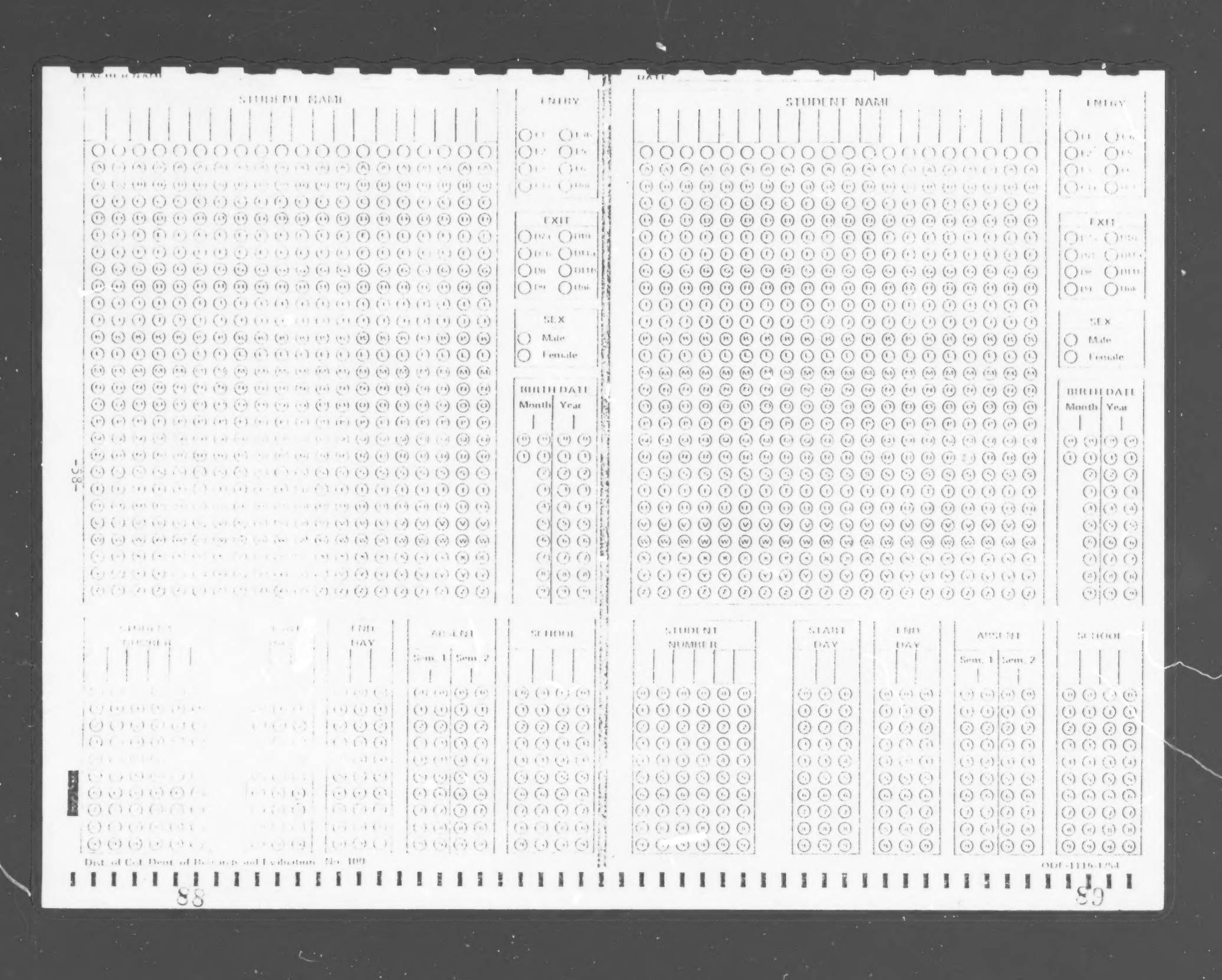
(0) (0) (0)
(1) (1) (1)
(2) (2) (2)
(3) (3) (3)
(4) (4) (4)
(5) (5) (5)
(6) (6) (6)
(7) (7) (7)
(8) (8) (8)
(9) (9) (9)

ABSENT

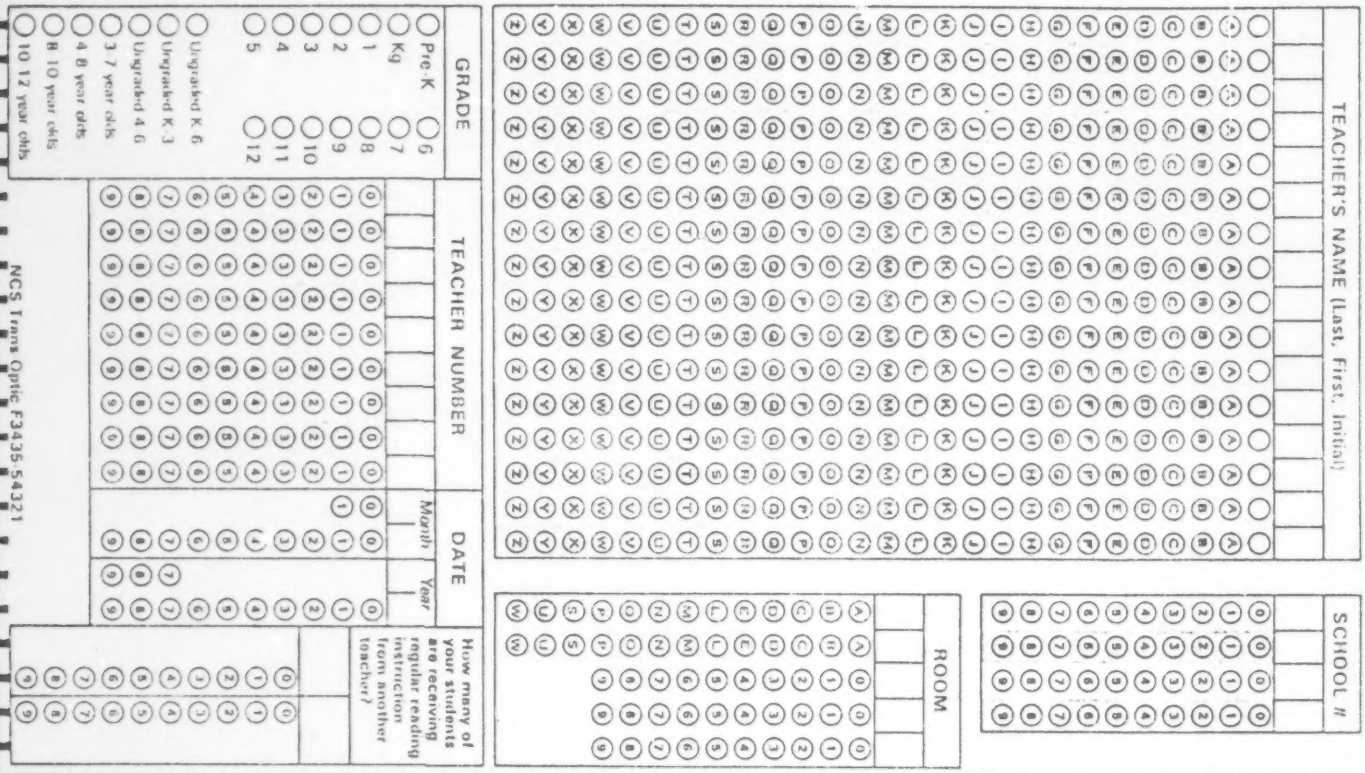
Sem. 1	Sem. 2
(0) (0)	(0) (0)
(1) (1)	(1) (1)
(2) (2)	(2) (2)
(3) (3)	(3) (3)
(4) (4)	(4) (4)
(5) (5)	(5) (5)
(6) (6)	(6) (6)
(7) (7)	(7) (7)
(8) (8)	(8) (8)
(9) (9)	(9) (9)

District of Col. Dept. of Research and Evaluation Form #101

NCS Trans-Optic F3262 54321


STUDENT NAME
ENTRY
EXIT
SEX
Male
Female
BIRTH DATE
Month
Year
STUDENT NUMBER
START DAY
END DAY
ABSENT
Sem. 1
Sem. 2
SCHOOL
Dist. of Col. Dept. of Research and Evaluation No. 109
ODE-1116-1/84
88
89

APPENDIX C



The following questions pertain to your family or homeroom class.

Often students have needs or problems that affect the teacher's instructional program or the students' ability to learn:

a. As a result, have you referred any of your students this year to any of the following?

- ◯ Principal
- ◯ Counselor
- ◯ Health Specialist (Nurse)
- ◯ Speech Therapist
- ◯ Pupil Personnel Worker
- ◯ Visiting Instructor
- ◯ Special Teacher(s) (Reading, Math Specialists, etc.)
- ◯ School Psychologist
- ◯ Social Worker
- ◯ Aides (Educational, Title I, Health, Community, etc.)
- ◯ None
- ◯ Other (Specify) _____

b. Please mark the number of students you referred this year because they had learning problems in one of the following categories: Reading; Math; Speech; Language Arts; Other

1 - 3	4 - 6	7 - 9	10 or more	
◯	◯	◯	◯	Reading
◯	◯	◯	◯	Math
◯	◯	◯	◯	Speech
◯	◯	◯	◯	Language Arts
◯	◯	◯	◯	Other _____

c. Please mark the number of students you referred this year because they had learning barriers in one of the following categories:

1 - 3	4 - 6	7 - 9	10 or more	
◯	◯	◯	◯	Behavior*
◯	◯	◯	◯	Attendance
◯	◯	◯	◯	Truancy
◯	◯	◯	◯	Nutrition
◯	◯	◯	◯	Drugs
◯	◯	◯	◯	Home or Community
◯	◯	◯	◯	Child Abuse
◯	◯	◯	◯	Economic Conditions (Clothing, shoes, etc.)
◯	◯	◯	◯	Medical, Physical Health (Vision, Sickness, Dental, Pregnancy, Injury, etc.)

d. (Answer only if you have made NO referrals)
Why haven't you made referrals?

Learning Problems
Learning Barriers

- ◯ ◯ None of my students had a need to be referred
- ◯ ◯ I prefer to deal with the problems of my students myself if at all possible.
- ◯ ◯ The necessary special teachers were not available
- ◯ ◯ There was no counselor available
- ◯ ◯ There was no health specialist available (nurse, health aide, etc.)
- ◯ ◯ There is a lack of response to referrals
- ◯ ◯ I lack confidence in our referral system
- ◯ ◯ I lack confidence in the resource personnel.
- ◯ ◯ The referral procedures are poor
- ◯ ◯ We are encouraged by the school's policy to handle our own classroom problems
- ◯ ◯ Other

DISTRICT OF COLUMBIA DEPARTMENT OF RESEARCH AND EVALUATION FORM #202

THIS SIDE TO BE COMPLETED BY READING TEACHER

TEACHER NUMBER

SCHOOL NO.

DATE (Month / Year)

TEACHER'S NAME (Last, first, Initial)

ROOM

GRADE

○ Pre-K ○ Kg ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ○ 11 ○ 12 ○ Ungraded K-6 ○ Ungraded K-3 ○ Ungraded 4-6 ○ 3-7 year olds ○ 4-8 year olds ○ 8-10 year olds ○ 10-12 year olds

1. How many regular reading classes do you teach during the school day?
   - ○ one
   - ○ two
   - ○ three
   - ○ four
   - ○ five
   - ○ six
   - ○ seven
   - ○ eight

2. If you teach only one reading class during the day, during what time of the day is it taught?
   - ○ before 10 am
   - ○ between 10 am and noon
   - ○ afternoon

3. How long have you been the reading teacher for your class or classes this year?
   - ○ less than 1 month
   - ○ 1 month
   - ○ 2-3 months
   - ○ 4-5 months
   - ○ 6-7 months
   - ○ 8-9 months

4. Have you been teaching your reading class or classes by a team teaching approach this year?
   - ○ yes
   - ○ no
   - ○ no, but we exchange students for reading

5. Have you taught any reading skills objectives for your class this year other than those on the attached list?
   - ○ yes
   - ○ no

6. If yes, what percent of the reading skills objectives you taught were not contained in the attached PRT listing?
   - ○ less than 10%
   - ○ 10% to 20%
   - ○ 21% to 30%
   - ○ 31% to 40%
   - ○ 41% to 50%
   - ○ 51% to 60%
   - ○ 61% to 70%
   - ○ 71% to 80%
   - ○ over 80%

7. Did you teach PRT skills objectives from more than one of the test levels this year?
   - ○ yes
   - ○ no

8. Were you free to choose the reading skills objectives taught in your class(es) this year?
   - ○ totally
   - ○ to a great extent
   - ○ to some extent
   - ○ no

9. To what extent do you coordinate your instructional reading program with others in the school who also work with any student in your reading class or classes? (Mark all those that apply)

OTHER PERSONS WHO HELP MY STUDENTS IN READING

totally	to a great extent	to some extent	not at all	
○	○	○	○	The child's family or homeroom teacher (if you are not that person)
○	○	○	○	The reading specialist(s)
○	○	○	○	The reading resource teacher(s)
○	○	○	○	The reading aide(s)
○	○	○	○	The reading tutor(s)
○	○	○	○	Others (Specify) _____

Dist. of Col. Dept. of Research and Evaluation #200

If you are not this student's family or homeroom teacher, please print your name and the name of the aide who helps you in the reading class, and group or section of this student if you have more than one group.

Teacher

Aide

Section

STUDENT ID NUMBER

TEACHER NUMBER

SCHOOL

STUDENT NAME

Teacher Name

School Name

B. 1. How many months has the child been in your class this year?

○ Less than one month ○ 1 month ○ 2 months ○ 3 months ○ 4 months
○ 5 months ○ 6 months ○ 7 months ○ 8 months

B. 2. Is this child in need of extra help in reading?

○ Yes, very much ○ Yes, somewhat ○ No

B. 3. THIS YEAR from what sources OTHER THAN YOU has this child received reading instruction DURING THE REGULAR SCHOOL DAY? Please mark all applicable.

○ None, no extra help ○ College student tutor ○ Other elem. sch. student tutor ○ Parent tutor ○ Don't know - new student
○ Reading specialist/reading resource teacher ○ Teacher aide tutor ○ Jr. high student tutor ○ Urban service corps tutor
○ Service group tutor ○ Sr. high student tutor ○ Other

B. 4. To the best of your knowledge how many months has this help been provided by the sources marked above?

○ Less than one month ○ 1 month ○ 2 months ○ 3 months ○ 4 months
○ 5 months ○ 6 months ○ 7 months ○ 8 months

B. 5. How often each week does this child receive reading instruction from the sources listed above? Mark most appropriate.

○ 5 Days ○ 4 Days ○ 3 Days ○ 2 Days ○ 1 Day ○ Less than once a week

B. 6. If this child needs extra help in reading and is not receiving it, please mark the main reason.

○ No reading specialist/reading resource teacher ○ Lack of instructional materials ○ Other (please explain) _____
○ Lack of tutorial services ○ Lack of teacher aides _____
○ Lack of diagnostic information

D. Why are you using the materials listed on the reverse side of this form for this student?

○ They are the materials I have found most effective in the past.
○ They are the only materials most readily available in my school.
○ They are materials suggested or recommended by the principal or supervisor.
○ They are keyed to the school system reading objectives and criterion-referenced tests.
○ Other _____ DO NOT WRITE OUTSIDE BOX
○ They are materials found most suitable to this student's needs.
○ I learned about the materials in an in-service program/workshop.
○ I selected them on the basis of my own diagnostic test and observations.
○ I selected them on the basis of standardized test results.
○ They are the materials used as part of the special program in this building.

C. Aside from reading instruction, how often does this student read on his own in school? (library books, comics, etc.)

○ Often ○ Sometimes ○ Never

E. How would you assess this child's interest in reading?

○ Very interested
○ Moderately interested
○ Seldom interested
○ Not interested
○ Actively dislikes reading

EVALUATION SYSTEM
STUDENT READING PROGRAM FORM

"END OF DOCUMENT"

MARKING INSTRUCTIONS

1. Use black lead pencil only (No. 2½ or softer.)
2. Do not use ink or ballpoint pens.
3. Make heavy black marks that fill the circle completely.
4. Erase completely any mark you wish to change.
5. Do not make any stray marks on this sheet.

BASAL SERIES

101 Bank Street Readers – MacMillan
102 Basic Curriculum Series – Lippincott (McLeod, McCracken & Walcutt)
103 Betts Basic Readers – American Book Co.
104 Bookmark Reading Program – Harcourt, World & Brace
105 Ginn Basic Readers, 100 Edition (Russell, et. al.)
106 Ginn Basic Readers, 360 Program (Clymer, et. al.)
107 Harper and Row Basic Readers (Van Roekel, et. al.)
108 Houghton Mifflin – Reading for Meaning (McKee)
110 Lyons and Carnahan – Curriculum Motivation Series (Fay)
111 MacMillan Reading Program (Harris & Clark)
112 Reading Caravans – D. C. Heath Co. (Witty and Freeland)
113 Reading Experience and Development (Read) – American Book Co.
114 Scott, Foresman – Bright Horizons Reading Program
115 Scott, Foresman – Curriculum Foundation Series
116 Scott, Foresman – Open Highways Program
117 Sheldon Basic Readers – Allyn & Bacon
118 Cambridge Book Co. – Reading Series
119 D. C. Heath – Communications
120 Ginn Basic Readers, 300 Edition
121 Holt, Rhinehart, Winston – Basic Reading System
122 Houghton Mifflin – Interaction
123 MacMillan – Series R
124 New Dimensions in Education – Alfa Series
125 Scott, Foresman – Reading Systems
199 Other (Please specify when gridding in box below)

LINGUISTIC/PHONIC

201 Basic Reading Series – SRA – (Pig in a Jig Books)
202 Lippincott – Basic Reading
203 Merrill Linguistic Readers (Fries, Wilson & Rudolph)
205 Open Court Foundation Program
206 Palo Alto Reading Program – Harcourt, Brace & World
207 Phonetic Keys to Reading Series – The Economy Co.
208 Phonics We Use – Lyons and Carnahan
209 Phono Visual – Phono Visual Products
211 Readiness in the Language Arts (RLA) – Cynthia Buchanan
299 Other (Please specify when gridding in box below)

PROGRAMMED/STRUCTURED

301 Lift-Off to Reading – SRA – (Woolman)
302 Programmed Reading – Webster Division of McGraw Hill – (Buchanan & Sullivan)
303 Project READ – Behavioral Research Labs – (Sullivan's Reading)
304 Starter/101 – (Silver Burdett (O'Keefe)
305 Random House – Structural Reading
306 Reading Readiness Tapes – Ideal School Supply
399 Other (Please specify when gridding in box below)

LANGUAGE EXPERIENCE

401 Experience Charts – Commercial
402 Experience Charts – Made by Teacher with Class
403 Language Experience Readers – Noble & Noble (Chandler Reading Program)
499 Other (Please specify when gridding in box below)

INDIVIDUALIZED READING

501 Extensive Use of Variety of Published Materials
502 Little Owl Series (Classroom Library) – Holt, Rinehart, Winston
503 MacMillan Reading Spectrum
505 SRA Reading Labs
506 Extensive Use of Variety of Non-Published Materials
599 Other (Please specify when gridding in box below)

SUPPLEMENTARY MATERIALS

605 Invitations to Personal Reading (Classroom Library) – Scott, Foresman
609 Reading Comprehension Skills Exercises (D. C. Schools)
610 Readers Digest Services, Inc.
611 Singer, Random House Literature Series
612 Torch Lighter Kits
613 Weekly Readers
614 Teacher Made Materials
615 Other (Please specify when gridding in box below)

SPECIAL

702 Distar – SRA (Englemann)
703 Frostig's Developmental Program in Visual Perception – Follett
704 I/T/A
705 Kindergarten Keys – Economy Co.
799 Other (Please specify when gridding in box below)

MOST USED MATERIAL			2nd MOST USED MATERIAL			3rd MOST USED MATERIAL		
	Approx. Level			Approx. Level			Approx. Level	
000	RR	3²	000	RR	3²	000	RR	3²
111	PP	4	111	PP	4	111	PP	4
222	P	5	222	P	5	222	P	5
333	1¹	6	333	1¹	6	333	1¹	6
444	1²	7	444	1²	7	444	1²	7
555	2¹	8	555	2¹	8	555	2¹	8
666	2²	9	666	2²	9	666	2²	9
777	3¹ or above		777	3¹ or above		777	3 or above	
888			888			888		
999			999			999		
OTHER (199, 299, ETC.) SPECIFY			OTHER (199, 299, ETC.) SPECIFY			OTHER (199, 299, ETC.) SPECIFY		

A. To what extent is the reading program described above indicative of what was used all year for this child for reading instruction? (Exclude changes in reading level)

- ○ Don't know - student new to this class
- ○ Very representative or very similar
- ○ Somewhat representative or somewhat similar
- ○ Not at all representative or not at all similar